SUPREME COURT, U.S.
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IN THE

Supreme Court of the United States

OCTOBER TERM, 1978

No. 78-187

KEWANEE OIL COMPANY,
Petitioner,

v.

BICRON CORPORATION, *et al.*,
Respondents.

BRIEF AMICUS CURIAE OF SCM CORPORATION

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BRIEF AMICUS CURIAE

AUTHORITY TO FILE

This brief is filed on behalf of SCM Corporation under Rule 42(2) of this Court with the written consent of both parties, the originals of the consent letters being filed herewith.

OPINIONS BELOW

The opinion of the United States District Court for the Northern District of Ohio is not reported, though it is understood that its findings of fact and conclusions of law, with information as to the nature of the alleged trade secrets excised,[1] appears in the Appendix at 51

[1] Based upon correspondence with petitioner's counsel, it is further understood that the material contained in the Appendix constitutes the totality of the allegedly "secret" proceedings in the District Court which have been made available to any of the amici

et seq. The opinion of the Court of Appeals is reported at 478 F.2d 1074.

CONSTITUTIONAL AND STATUTORY PROVISIONS

The involved constitutional provisions are the Commerce and Patent clauses contained in Article 1, Section 8, clauses 3 and 8, the Supremacy clause contained in Article VI, clause 2, the Fifth, Ninth and Tenth Amendments and Sections 1 and 5 of the Fourteenth Amendment. In addition, the case involves the proper interpretation of 35 U.S.C. 101 and 102. These provisions are all reproduced *infra*, 1a to 3a.

QUESTION PRESENTED

The sole question properly raised by the record below is: May a state perpetually enjoin use, by one who has lawfully acquired it, of technical information within the subject matter scope of 35 U.S.C. 101 on which the right to a patent has been forfeited by failure to file a timely patent application and by commercial use for more than one year?

No other question, including the broader one suggested in the petition, was decided below or finds sufficient evidentiary support in the deliberations of the courts below to warrant entertainment by this Court in this case at this time.

INTEREST OF THE AMICUS

SCM is a worldwide diversified business enterprise engaged in a variety of research, development and manufacturing pursuits which include every aspect of the acquisition, development, protection and dissemination of technical information.

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appearing in this case before this Court including the United States Department of Justice.

SCM has a broad based interest in the outcome of this case which is essentially the same as that of many of petitioner's amici who are either corporations or associations comprising a plurality of corporate members.[2] While SCM does not subscribe to the arguments advanced by these parties or the conclusionary non-evidentiary "facts" which are alleged to show that the decision below, if affirmed, would discourage expenditure of money on research and development activities to the detriment of society, SCM does stand to be affected in precisely the same way by the outcome of the Court's decision in this case as any of these corporate and corporate-centered amici.

In addition to its broad interest, SCM has a particular interest in this case in that the central issue posed is closely related to, though different from, the central issue in SCM's own litigation against Mobil Oil Corporation pending in the District Court for the Northern District of Ohio.[3]

SUMMARY OF ARGUMENT

Trade secrets are often utilized to perpetually monopolize technical information, whether or not it meets the exacting criteria for validly patentable invention. Conventionally the monopoly is created by first requiring employees to sign agreements preserving as permanently "confidential" all of the proprietor's unidentified trade

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[2] These amici include at least Optical Coating Laboratories, Inc., Rohr Industries, Inc., Electronic Industries Association, R.J. Reynolds Industries, Inc., Southwire Company, Burroughs Corporation, The Budd Company, the Chamber of Commerce of the United States of America and the Manufacturing Chemists Association.

[3] Specifically, Civil Action C-73-751 filed July 18, 1973. Further details concerning the relationship of that litigation to this case are set out under the heading "Interest of the Amicus Curiae" at pages 1-4 of SCM's amicus brief opposing the grant of certiorari in this case, the cited portion of which is incorporated herein by reference.

secrets and then licensing competitors on a "confidential" basis in exchange for a running "use" royalty. The only attribute of patents lacking under such arrangements is a legally enforceable right to exclude independent discoverers of the "secret" from using it—and if the "secret" is widely licensed in the pertinent industry, there will be no need for that right because few, if any, interested persons will remain who are outside the "confidence". Meanwhile the public suffers because the safeguards which carefully limit the patent right to a statutorily authorized sphere are inapplicable to trade secrets.

The decision below holds that "trade secrets" in information responsive to the subject matter definition contained in 35 U.S.C. 101 are, under 35 U.S.C. 102(b), dedicated to the public if used commercially for more than one year, absent the timely filing of a patent application—and that in view of this public dedication an injunction may not issue to prevent use of the "secret" by a former employee who learned it lawfully in the course of his employment. The decision does not revoke the law of trade secrets nor interfere with criminal penalties for fraud, theft and the like. It does not contravene any existing treaties, statutes or rules, nor does it disrupt legitimate existing business relationships. Nor does it deal with conflicts between patents and trade secrets arising under other sections of the patent law, or conflicts with any aspect of antitrust law or the law of international commerce. Trade secret "property" in technology does not promote "investment" in research and development, which is stimulated mainly by competitive pressures and secondarily by direct subsidies—e.g. depreciation and other tax advantages.

There is no natural law or preconstitutional common law property right in technical information and property is not an inevitable or legally required result of the expenditure of time, money or labor.

The dedication policy of the patent system is based on common law which predates the Constitution, when commercial use was synonymous with making an invention public regardless of whether precise details of the invention were revealed by the commercially used or sold article, and on the paramount public interest protected by the Constitutional patent clause and the laws enacted thereunder. That policy has been consistently recognized and implemented in many decisions of this Court.

The federal patent law preempts state trade secret law as to subject matter within the scope of 35 U.S.C. 101 and inexorably subjects an alleged "secret" if used commercially for more than one year without the timely filing of a patent application, to the bar of 35 U.S.C. 102(b). Federal preemption by the patent laws is further required because patent policy must not compromise other constitutional objectives. In particular, patent policy affects interstate commerce and may not conflict with Congressional policy adopted pursuant to constitutionally exclusive federal power. Likewise, patent policy may not derogate the rights of all citizens under the Fifth and Fourteenth Amendments. Moreover, these latter rights are themselves paramount to and preemptive of state law policies favoring corporate financial interests and they *per se* preclude the permanent injunction petitioner seeks against respondents.

ARGUMENT

A. INTRODUCTION

The decision below enunciates no new or novel proposition of law, nor does it suggest that the whole gamut of state trade secret law is preempted by federal patent law. It simply holds that where the right to federal patent property in particular technical information has been deliberately forfeited, no state may, on the pretext of recognizing an adverse "natural" or contractual prop-

erty right, enjoin any person in lawful possession of that same information from utilizing it.

At the heart of the numerous amicus briefs favoring petitioner which the case has generated [4] is the fact that the decision below is a significant obstacle to an ever mounting campaign to circumvent, weaken, and ultimately destroy the exacting criteria for patentable invention contained in the federal patent laws as enacted pursuant to

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[4] Some fourteen amici have filed briefs in support of the petitioner. These amici include five individual corporations, i.e. Burroughs Corporation, R.J. Reynolds Industries, Southwire Co., The Budd Co., Rohr Industries, Inc., and Optical Coating Laboratory, Inc.; three trade associations composed mainly of corporations, to wit, the Chamber of Commerce of the United States, the Manufacturing Chemists Association, and Electronic Industries Association; and six groups wholly or partially comprised of and led by patent lawyer members, namely the American Bar Association, the New York Patent Law Association, the American Patent Law Association, the Bar Association of the District of Columbia, the Association for Advancement of Invention and Innovation and the Licensing Executives Society.

Most of these briefs are signed by one or more patent lawyers and many of the signatory patent lawyers have personally been active for some years in attempting to obtain a relaxation in the federal statutory criteria for patentable invention either by judicial fiat or through lobbying Congress for statutory changes. See, *e.g.*, the various amicus briefs filed by bar associations in the petitioner's behalf in *Graham* v. *John Deere Co.*, 383 U.S. 1 (1966), and the statements made on behalf of various bar associations at hearings on proposed patent legislation during the past seven years, exemplary of which are those made before the Subcommittee on Patents, Trademarks and Copyrights of the Committee on the Judiciary, United States Senate, 90th Cong., 1st Sess. (1967) concerning S. 2, S. 1042, S. 1377 and S. 1691 and 92nd Cong., 1st Sess. (1971), regarding S. 643, S. 1253, and S. 1255 held May 11, 12 and 13, 1971. Similar views were expressed on behalf of bar associations and in particular on behalf of the American Patent Law Association in a then proposed bill (now H.R. 11868) submitted at the soon-to-be published hearings of the same subcommittee held in September 1973 in regard to S. 1321 (93rd Cong., 1st Sess.).

The socio-economic arguments now advanced to support liberalized trade secret protection are the same ones which have been unsuccessfully advanced to induce judicial or legislative relaxation in the strict criteria for patentable invention. See *infra*, p. 47.

the Constitution.[5] This campaign embraces a plurality of modes of attack, only one of which is concerned with an enlarged "property" scope for trade secrets.[6]

The degree of enlargement in the scope of trade secret "property" rights today is evidenced to some extent by the facts of record concerning the confidentiality agreements which petitioner in this case imposed upon the various individual respondents.[7] According to Fact Finding 104 (App. 83) petitioner "regularly requires its employees to execute . . ." blanket confidentiality agreements which in no way adumbrate the scope of confidentiality the employer will claim if the employee wants to leave the company.[8]

Such agreements convey no flavor of good faith arm's-length bargaining between equals; rather there is an aura of duress or coercion, with the economically strong

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[5] For a detailed discussion of historical and constitutional considerations surrounding some of these criteria see "The Constitutional Standard of Invention—The Touchstone for Patent Reform", by Irons and Sears, written pursuant to invitation of and soon to be published in the University of Utah Law Review, and reproduced in its entirety *infra*, 4a to 50a.

[6] Some commentators and text-writers have urged strongly that trade secret protection is a viable alternative to patents. See *e.g.* the articles cited by the amicus New York Patent Law Association at p. 11 and Milgrim, "Trade Secrets", Matthew Bender & Co. (New York 1967; revised and supplemented yearly). The latter—a virtual polemic for "competition" between patents and trade secrets incident protection of technical information—was heavily relied on to support the decision in *Painton & Co.* v. *Bourns, Inc.*, 442 F.2d 216 (2 Cir. 1971) said by petitioner, its amici and the Sixth Circuit to be "in conflict" with the decision below.

[7] See for example fact findings 48, 52, 54, 57 and 62 (App. 67-74).

[8] It is not at all unusual for employees to be kept in ignorance that any technical information is claimed to be a trade secret until such time as the employee's resignation takes effect. Sometimes, if an employee knew in advance that particular information was deemed a "trade secret", he might prefer not to be encumbered with it—but employers rarely consider such matters.

employer imposing its will upon the economically far weaker technically trained employee. When the employer has successfully imposed "confidentiality agreements" upon all of its technically trained employees, then it has the option of declaring all internally developed unpatented and unpublished technical information to be "secret", thus effectively binding knowledgeable employees to that company for life by ensuring that they have no special skills marketable elsewhere.[9]

The briefs amicus of the Licensing Executives Society (pp. 19-25), Rohr Industries, Inc. (pp. 9-15) and Optical Coating Laboratories, Inc. (pp. 4-12) further give some indication of the wide-spread degree to which allegedly "secret" information is "confidentially" circulated through-

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[9] Amicus Electronic Industries Association suggests that affirmance of the decision below will "destroy employer-employee trust" (Br. 3-5) *inter alia* because *employees* will "have little incentive to innovate on behalf of their employer or to share their discoveries with their employer" (Br. 4) if the well-nigh medieval shackles of existing confidentiality agreements be so modified that unpatented and unpatentable technical information in public use or on sale for more than one year becomes *per se* nonconfidential. But history shows and psychology confirms that free men are better motivated to innovate and make discoveries than bondservants and the suggestion appears to be ill-conceived.

If anything, affirmance of the decision below will enhance *employee* trust, which is at a low ebb. See *e.g.* Chemical & Engineering News for October 15, 1973 (p. 4) reporting a lawsuit against E.I. duPont de Nemours & Co. for damages based on dismissal of a chemical engineer having 16 years service who wrote a book "critical of large chemical and petroleum corporations." The article points out *inter alia*:

> ". . . that in most states professional employees enjoy essentially no legal protection against arbitrary dismissal from their jobs. Most professional employees are not members of unions. Hence, they do not have the protection of a union contract. In many cases protection under federal equal employment opportunities legislation against discrimination on grounds, of sex, race, religion, and the like is not pertinent. And most employment contracts signed by scientific personnel on joining a corporation are largely concerned with protecting the corporation."

out industry as "property" under circumstances akin to those which attend patent licensing—i.e. in exchange for running royalty payments keyed in amount to the licensee's commercial use of them.

When trade secrets are protected as "property" and disclosed "confidentially" to all or most of the competitors in a field in exchange for running "use" royalties, the monopoly power of the trade secret "owner" is not significantly different from that of a legitimate patentee insofar as its exclusionary impact is concerned. In such cases, there is very little chance that the "secret" will be discovered independently and published,[10] notwithstanding the inconsistent arguments of petitioner and its amici since essentially all interested people are already within the penumbra of the "confidentiality", and few, if any, potential independent discoverers are left.

Moreover, in such cases, the trade secret "property owner" really enjoys a more favored position than a legitimate patentee. First of all, he is able to select the subject matter limits of his trade secret himself and is not bound by claim limitations imposed by the Patent Office as a condition of the grant. Secondly, he is able to select the term of his trade secret "property right" himself, just like petitioner in this case, and hence, is not limited to the seventeen years afforded by the patent laws.[11] Furthermore, he can select any "license" terms

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[10] It is of course "public" whether or not published because used in commerce. See Section D 1a, *infra*, p. 32. It is also "public" because known to all or most of those persons most intimately concerned with its details and as such, it becomes a part of the knowledge which goes to make up the ordinary level of skill in the art. See 35 U.S.C. 103 and *Graham* v. *John Deere Co.*, 383 U.S. 1 (1966).

[11] The Court below noted that "Counsel for Kewanee frankly stated in the course of the arguments before this Court that one of the principal purposes of maintaining the secrecy of inventions, including those here involved, as opposed to seeking patents under the Patent Laws, would be to extend the commercial monopoly of

he wishes since there is no law of "misuse" applicable to trade secrets, and hence, no need to fear that the trade secret may be rendered unenforceable by inequitable licensing conduct. Finally, there are no statutory and constitutional criteria for validity of trade secrets, and hence the risk of loss is slight.

In short, to be able to hold technical information "secret" while exploiting it just like a patent is to have your cake and eat it too. No wonder that petitioner and its amici are anxious to preserve this halcyon condition and remain free to extend its benefits still further at their own options.

It is readily apparent that the trade secret system as it is now progressing and as it would flourish in the event of a decision for the petitioner in this case, is a strong deterrent to "the Progress of Science and useful Arts" which the patent system, pursuant to constitutional mandate, *must* "promote". By fostering non-publication and controlled use of technical information, trade secret law effectively precludes the use of knowledge as a stimulant for the production of more knowledge, thus retarding the progress of society. As said by this Court in *Woodbridge* v. *United States*, 263 U.S. 50, 61 (1923) the trade secret owner "comes not within the policy or objects of

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the invention beyond the seventeen years granted by the Patent Laws."

While Kewanee seeks to repudiate this admission (P.Br. 35, n. 11) and argues (P.Br. 26-28) that the injunction granted by the district court was not "the common law equivalent of a patent monopoly", whatever that may mean, it does not deny that the injunction did afford a "monopoly", as indeed it cannot. The classic English definition of monopoly, enunciated by Sir. Edward Coke, *infra*, p. 17a, note 27 contemplated that a monopoly exists if "*any* person or persons . . . are sought to be restrained of any freedom or liberty that they had before or hindered in their lawful trade"—and respondents would *certainly* be restrained of the freedom to use all their knowledge and skill, and hindered in their lawful trade if the injunction were reinstated.

the Constitution or acts of Congress. He does not promote, and, if aided in his design, would impede, the progress of science and the useful arts. And with a very bad grace could he appeal for favor or protection to that society which, if he had not injured, he certainly had neither benefitted nor intended to benefit."

This trade secret system is not really "secret" at all, but rather a system of private monopoly wherein a group of conspirators all privy to the "secret" hold and use unpublished information within their own industry for their own mutual benefit. Because this tends to discourage competitive research, it also tends to "stabilize" each individual industry. It precludes cross-fertilization with knowledge available in other technical disciplines, to the ultimate detriment of the public. Realistically viewed, these systems are conspiracies in restraint of trade wherein each trade secret proprietor is able to "function as its own patent office and impose its own law upon its licensees." [12]

Ease of availability of "property" protection for trival technology, "trade secret" or otherwise, obviously discourages research and development [13] in more daring and

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[12] *Mercoid Corp.* v. *Mid Continent Investment Co.*, 320 U.S. 661, 667 (1944). To the same effect is the separate, partially concurring opinion of Mr. Justice Black joined by Mr. Chief Justice Warren and Mr. Justice Douglas in *Lear* v. *Adkins*, 395 U.S. 653, 677 (1969).

[13] As said in *Atlantic Works* v. *Brady*, 107 U.S. 192, 199-200 (1883)

> "To grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in its consequences."

Statistics published by the Bureau of National Affairs in its Patent, Trademark and Copyright Journal on September 13, 1973 show that West Germany and Japan—two countries whose research and development efficiency is reckoned to be very high at present—have much higher standards of invention than our

revolutionary technology, where the risk of not developing useful information is higher—a factor which undoubtedly has a significant bearing on the much talked about deterioration of United States research and development in recent years.[14]

B. IRRELEVANT ISSUES ADVANCED IN THIS COURT

Because the briefs of petitioner and its amici have advanced numerous "strawmen" issues not decided below or raised by the record in this case and not even relevant here, clarification is appropriate.

Pointedly, the decision below *did not destroy* trade secret law generally and did not even foreclose recognition of trade secrets in technical information. Because

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Patent Office does, with about 30% and 40%, respectively, of patent applications filed maturing into patents compared to a figure of 75-80% in this country.

When the deterrent effects of trade secret monopolies on routine subject matter are taken into account conjunctively with the similar effects of the many trivial patents daily issued, it is not at all surprising that the deterioration of United States research and development efforts is rapidly becoming a matter for serious concern.

[14] Some evidence of the stagnating condition of American industry may be found in the fact that revolutionary technology is not being industrially applied. An article appearing in the Wall Street Journal for November 27, 1973 headlined "Remember the Rolamite? History's 27th, and Newest 'Elementary Mechanism' Still Works, but It Hasn't Revolutionized Technology" states, *inter alia*:

> "In all of history, by one count, only 27 elementary mechanisms—like the lever, the pulley, the ball joint, the hinge and the clutch—have been invented. The 27th was the rolamite, the only one to appear in this century. Invented in 1967, it's a cheap, practically indestructible gadget that theoretically could replace the working parts of hundreds of more complicated and costly mechanical devices. . . .
>
> "But nobody saluted. Manufacturers admire the rolamite but are unwilling to revamp their operations to make things with it. Engineers say older mechanisms work well enough. . . ."

it did not, petitioner's question directed to whether the Constitution and the patent laws preempt the state law of trade secrets insofar as it applies to "confidential" relationships is far too sweeping in scope. *That* question as posed is not susceptible of answer in this case where there is a vacuum of evidence relating to alleged "secrets" other than those constituting information cognizable under 35 U.S.C. 101 but forfeited to the public by commercial use in excess of one year, coupled with failure to file a timely patent application. The framing of such an amorphous question has, however, permitted petitioner and its amici to advance arguments in terms of "trade secrets" broadly so as to suggest that existing law has been disrupted to the point of upheaval. When put in context with what was decided, these "horribles" are illusory.

To amplify:

(1) The court below made no pronouncements on that phase of trade secret law relating to criminal remedies for "espionage", burglary, theft, fraud, bribery, assault and the like. As is apparent from the same court's later decision in *United States* v. *Greenwald*, 479 F.2d 320 (6 Cir. 1973), the decision below did not disrupt the criminal law and was not intended to do so.[15]

This is, of course, only logical. Remedies for unlawful taking or copying of drawings, blueprints, manuscripts, reports and other tangible items containing information do not turn upon whether or not the information is "secret" but rather are dependent upon that policy of law which preserves the sanctity of a man's person, home and place of business against unauthorized invasion and gives rise to the authorized police power of the states.[16]

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[15] See the briefs amici of Burroughs (p. 18 and p. 24, n. 41), the Manufacturing Chemists Association (p. 15, esp. n. 24) and Southwire Co. (p. 2) and Petitioner's Brief at 46.

[16] Police power does not, as suggested by some of petitioner's

A similar policy governs the elicitation of a "trade secret" from a man's mind by threat of violence. Again, the remedy is based on the unauthorized violation of the sanctity of the person and not upon alleged secrecy of the information—the same remedy being available even if the information elicited were old.

State law affording criminal remedies for embezzlement of *bona fide* "trade secret" information such as e.g. Ohio Revised Code §§ 1333.51(C) and 1333.99(E) reproduced at P.Br. 3, is likewise left undisturbed by the decision below,[17] which simply holds that technical information forfeited to the public by operation of the patent laws cannot be a *bona fide* trade secret.

(2) The decision below does not deal at all with the question of whether money payments may appropriately be exchanged for disclosure of "trade secrets", nor is the matter in any way raised by the record in this case. But exercise of the most ordinary common sense leads to immediate recognition that the law authorizes, encourages and enforces payment of money in exchange for communication of information that is neither "secret" nor new in many legitimate relationships. For example, people quite customarily take lessons in any number of subjects that are in no sense secret, ranging from cooking, sewing and flower arranging, to games such as golf, bridge, tennis and the like to arts such as music and painting. People also take lessons in how to speak foreign languages, how to write and how to practice a useful trade—e.g. carpentry or television repair. Attendance

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amici, provide any basis or pretext for the creation of private monopolies in the guise of "trade secrets".

[17] Note that criminal remedies for embezzlement of documents, including blueprints, drawings, reports, models and other tangible things do not rest upon whether the information embodied in the embezzled item is "secret" or "public" but rather, upon unauthorized taking of tangible property.

at schools and colleges, including those where tuition is paid in exchange for instruction in a wide spectrum of public record knowledge is regularly at a high level. In the circumstances the suggestion [18] that at least the payment provisions of existing and perhaps all contracts for disclosure of alleged "trade secret" information already forfeited to the public will be nullified by affirmance of the decision below, seems impractical.[19]

The related argument of many amici [20] that no further contracts for teaching secret "know-how" to competitors will ever be consummated because it will be cheaper for a competitor to hire an alleged "disloyal" employee at a high salary than to enter into a contract for full instruction in the subject matter seems obviously invalid. The amicus brief of the Licensing Executives Society points out that, in the case of jet engines alone, secret know-how may encompass "details of dimension of a thousand parts, temperatures of operation, choice of metallurgy, speed of rotation and centrifugal force on

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[18] The amicus Licensing Executives Society lists seven types of contracts (Br. 19-26) that it says this case will "invalidate"; amicus R. J. Reynolds Industries, Inc. laments that "existing contracts . . . will be so frustrated that agreements for the exchange of know-how . . . will be a thing of the past." (Br. 11). See also e.g. the briefs of amicus Optical Coating Laboratory, Inc., 8-9; amicus Burroughs Corp. 12-14 and 16-17.

[19] What *will* be nullified in such cases is the continuing "confidentiality" of the information conveyed, *not* the obligation to pay for services rendered incident proper instruction of a competitor in all details of the subject matter of the purported "secret", including how to use it. Whether those provisions of such contracts that require running "use" royalty payments subsequent to forfeiture will also be nullified, analogously to the treatment of a contract requiring similar "use" royalties under an expired patent in *Brulotte* v. *Thys Co.*, 379 U.S. 29 (1964) is for another case in which the issue is properly raised.

[20] See e.g.. the Optical Coatings Laboratory Brief 7-8, the R. J. Reynolds Industries Brief 10, the Southwire Co. Brief 4, the Burroughs Corp. Brief 15.

blades, pressure on gas and air to burn how fast—the distillation of a million 'obvious' details" (p. 39). Manifestly, one or two "disloyal" employees will not carry such a complex mass of detail in their heads—and if it is desired to acquire the "know-how", a competitor will need to pay for access to plans, engineering blueprints, technical data and reports and instruction by a whole team of company specialists and hence will have to approach the corporate proprietor of the "know-how" directly.

(3) The decision below did not affect the validity of any law passed by Congress, any court rule or any treaty.[21] Indeed, there is no evidence anywhere, including in the briefs of the various parties who raise this point, that the expression "trade secret" as utilized in any of the cited statutes, rules and treaties was intended to

[21] See Pet. Br. App. A. Petitioner and many amici seem to consider a broad reference to "trade secrets", without more, in a statute, rule or treaty as antithetical to the decision below. See, e.g., the briefs of the Association for the Advancement of Invention and Innovation p. 8; Manufacturing Chemists Association pp. 38-39; American Patent Law Association p. 4; Burroughs Corp. p. 7; R. J. Reynolds Industries p. 9; New York Patent Law Association pp. 23-25; American Bar Association p. 3, n. 2; pp. 7-8; Bar Association of the District of Columbia pp. 13-14; Licensing Executives Society pp. 57-58.

Amici Manufacturing Chemists Association ("MCA") (p. 38) and Rohr Industries (p. 4, n. 2) also endeavor to bootstrap the provisions of 35 U.S.C. 122 into a recognition of a "patent applicant's option to retain his invention as a trade secret if no patent is obtained" (MCA Br. 28). This interpretation of 35 U.S.C. 122 which does not itself mention "trade secrets" was enunciated, without support from precedent or legislative history in *Sears* v. *Gottschalk*, 357 F. Supp. 1327 (E.D. Va. 1973), a Freedom of Information Act case, now on appeal (No. 73-1699) before the Court of Appeals for the Fourth Circuit.

In that case, the Patent Office stipulated that it "has no right under any statutory or constitutional provision or on any other basis to recognize any sort of property right in subject matter which it has adjudged unpatentable." (Quoted from p. 48 of the printed Appendix filed in No. 73-1699).

apply in any way to technical information, the right to a patent for which had been previously forfeited to the people of the United States through commercial use for more than one year. Absent very clear evidence that "trade secret" as utilized in any one or more of those authorities actually encompassed the type of alleged trade secrets to which the decision below applies, these arguments are simply irrelevant and should be disregarded.[22]

4. The decision below did not in any way deal with the question of whether trade secret protection is consistent or inconsistent with federal antitrust policy and statutes (P. Br. 45-47), nor is the question in any way raised by any part of the record. The cases cited by petitioner to support the alleged consistency in no way establish that federal antitrust policy would be served by protecting as a "trade secret" through a perpetual injunction, information already deliberately forfeited to the public by failure to apply for a patent plus commercial use for more than one year.

Nor is there any authority anywhere that would indicate that the *de facto* monopolies created by disclosing alleged "trade secrets" to a plurality of prospective (i.e. employee) and actual competitors on a "confidential" basis, thereby establishing a conspiracy to withhold the "secret" information from outsiders and to prevent pub-

[22] Moreover, as to those authorities which have to do with nondisclosure by federal government agencies of alleged "trade secrets" communicated to them, it seems evident from a practical viewpoint that the intent of Congress was simply to encourage voluntary and nonlitigious submissions, *inter alia*, for investigational and informational purposes. In other words, the government, to gain cooperation in the submission of information needed or desired for governmental studies, surveys and the like, found it desirable as a matter of policy to accept as "trade secrets" any information so labeled and to maintain it on that basis, leaving parties adverse to the claimant including the government itself, to challenge the *bona fides* of the trade secret claim in actual controversies where the issue might arise.

lication, are or could be consistent with antitrust policy. And since a group of present and potential competitors banded together for the purpose of exploiting and holding "secret" from public view information forfeited to the public under the patent laws has a marked resemblance to the flagrantly monopolistic medieval guilds and their equally monopolistic exclusive corporation successors in England, escape from which was once a major motivation for coming to this country, antitrust policy would appear to be mocked rather than served by these conspiratorial groups.

5. Because the May 10, 1973 decision below obviously could not touch upon *proposed* Section 301 of S. 2504, the present administration's proposed patent bill first unveiled on September 27, 1973, petitioner's effort to influence this Court by what it *might* portend *if* it were passed is presumptuous, to say the least. Whatever "the Administration's view" (P. Br. 52) of what the law should be, this Court must deal with what it is.

6. The court below was properly not at all concerned with fine points of whether the alleged "trade secret" information involved in this case would have satisfied either or both of U.S.C. 102 and 103 *if* one or more patent applications had been filed.[23] Dedication to the public by operation of 35 U.S.C. 102(b) occurs regardless of whether technical information is *both* new (35 U.S.C. 101 and 102 generally) and unobvious (35 U.S.C. 103) or new but obvious and hence not patentable.[24] To put

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[23] See generally the briefs amicus of the Chamber of Commerce (pp. 12-18) and the American Patent Law Association (p. 6).

[24] There is compelling authority from this Court and elsewhere that technical information within 35 U.S.C. 101 which does not meet the exacting standard of 35 U.S.C. 103 is "dedicated" to the public as soon as it is first commercially used by operation of the Constitution itself. See infra 28a et seq.

The Sixth Circuit had no need to reach that question in the circumstance that all of the information in issue before it had been

it another way, this case is controlled not by what *might* have transpired if there had been a timely patent application, but by what *did* necessarily transpire by reason of petitioner's deliberate forfeiture to the public of the technical information on which the perpetual injunction is sought. See Section D 1a, *infra*, p. 32.

C. THE INDETERMINATE ORIGIN OF AND BASIS FOR TRADE SECRET LAW

Trade secret law is of relatively late day origin, having apparently been recognized in England around 1820 [25] and in the United States somewhat later about 1845.[26] The heyday of trade secret law did not begin in this country until sometime subsequent to the 1868 decision of the Supreme Judicial Court of Massachusetts in *Peabody* v. *Norfolk*, 98 Mass. 1952.[27]

The Bar Association of the District of Columbia as *amicus curiae* alleges that "the right of an inventor . . .

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commercially used for more than one year and no patent applications were filed—with the result that dedication had necessarily occurred *at the latest* on the expiration of the year of grace afforded by § 102(b) and well before the respondents' interest in competing with petitioner arose. See Section D 1a, *infra*, p. 32.

[25] *Yovatt* v. *Winyard*, 1 Jac. & W. 394, 37 Eng. Rep. 425 (Ch. 1820) cited in the decision below; see also *Newbery* v. *James*, 35 Eng. Rep. 1011 (Ch. 1817) and *Williams* v. *Williams*, 36 Eng. Rep. 61 (Ch. 1817).

[26] See *Jarvis* v. *Peck*, 10 Paige 118 (N.Y. Ch. 1843); *Hammer* v. *Barnes*, 26 How. Pr. 174 (N.Y.S.Ct. 1863).

[27] Amicus Curiae Manufacturing Chemists Association suggests (p. 11) that trade secrets were recognized by the Romans, citing Schiller, "Trade Secrets and the Roman Law; The Actio Servi Corrupti", 30 Colum. L.R. 837 (1930). Examination of the article in question, however, reveals that this alleged "trade secret" protection consisted of certain police power type sanctions available against third parties for corrupting a slave by bribery and the like.

is a right of natural law" (p. 7) and cites the 1602 decision in *Darcy* v. *Allin* [28] as giving recognition to the common law right of an inventor to practice his invention secretly. Careful examination of that case and of the section of Blackstone's Commentaries cited (p. 7, n. 4) to support the allegation reveal that these authorities, viewed most favorably to the Association, recognized an inventor's common law right to *maintain* his invention in secret rather than a right to *practice* in secret. The distinction is material.

European, including English technology was for centuries dominated by guilds and their "exclusive corporation" successors, each of which had absolute monopoly power over an assigned segment of technology within a given geographic area. If an inventor who was not a member of a guild wished to practice his own invention, he needed a patent—a license, as well as a temporary monopoly, from the king—in order to do so.[29] Any secret practice of an invention by a person not a guild member would, absent a patent, infringe an existing guild monopoly and the result would have been fines and imprisonment for the secret practitioner, plus seizure and destruction of the involved goods.[30] As recognized in *Deepsouth*

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[28] Noy, Rep. 173; 74 Eng. Rep. 1131 (1602). This is the famous case concerning the monopoly patent on playing cards, an old commercial product, granted by Elizabeth I.

[29] See *infra* 14a to 21a; see also the authorities therein cited. One such authority, Prager, "A History of Intellectual Property from 1545 to 1787", 26 J. Pat. Off. Soc'y 711 (1944), reproduces at p. 754 a part of the French edict of February 5, 1776 abolishing the guilds as follows:

> ". . . We want to abrogate those arbitrary institutions which . . . retard the progress of the arts, by multiple difficulties put in the way of an inventor; those guilds that dispute his right to use a discovery never made by themselves. . . ."

[30] The eventual nineteenth century implementation in England of obligations of "confidentiality" in "trade secret" technical information is a bit ironic. England concurrently granted patent rights to

Packing Co. v. *Laitram Corp.*, 406 U.S. 518, 525-6 (1972) "Under the [pre-Constitutional] common law the inventor had no right to exclude others from making and using his invention." There was, hence, no "property right" in an invention at common law in those times.

Consistent with its *actual* apparent nineteenth century origin, one commentator has asserted that: [31]

> ". . . The law protecting unpatented or unpatentable and uncopyrighted or uncopyrightable intangible industrial property as 'trade secrets' evolved in the nineteenth century during the early growth of industry in this country. The protection afforded such intangible property was of course at the expense of competing interests in individual freedoms to thought and circulation of ideas, the right to pursue any calling, the mobility of employees, and free competition, all interests reflected in the Bill of Rights of our Constitution. *The law of trade secrets was a judicially created subsidy to emerging industry at the expense of these interests.* This can be understood in the context of other subsidies afforded industry by the law during that period including the early sacrifice of the health and welfare of workers as *injuria absque damnum* and the strict limitations placed on tort remedies such as nuisance against industrial offenders. Industry generally has been permitted to invade the public trust without recourse. *But, times have changed and they have changed radically. Industry no longer needs subsidization at the expense of other previous public*

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importers who obtained from others *outside* England by any means, fair or foul, disclosures of new technology and then introduced them into the realm. Thus as late as the early 19th century Englishmen who "stole" so-called "secrets" outside England were rewarded—yet those who "stole" them in England could be punished or enjoined.

[31] Kane, "Limitations on the Law of Trade Secrets" 53 J.Pat. Off. Soc'y 162 (1971).

> *interests reflected in the Constitution.* Rather, it is the individual freedoms to pursue any calling, of mobility, of circulation of ideas, of free competition and regimentation, which today need careful guarding. . . ." (Emphasis added).

In short, trade secret law was born of expediency. It most assuredly was not born of "natural law".

Indeed, the notion that natural law confers a "property right" upon the creator or discoverer of any form of information, irrespective of positive law recognition, finds no support whatever in natural law philosophy as originally promulgated.[32]

According to Machlup and Penrose,[33] who have traced in detail its history, the "natural property right" concept as applied to inventors was itself originated in a spirit of expediency by the French politician De Bouffler [34] as a deliberate ruse to preserve patents from the strong popular tide against privilege and monopoly and *for* liberty and equality which dominated the French Con-

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[32] St. Thomas Aquinas, who is generally considered to be the father of natural law philosophy, did not advocate any natural property right in information. Nor did Aristotle, whose writings are conceded to have heavily influenced Thomas Aquinas, make any such suggestion.

[33] "The Patent Controversy in the 19th Century" 10 Journal of Economic History 1, especially at 11-17 (1950).

[34] Note 2, page 7 of the Brief Amicus of the Bar Association of the District of Columbia, which suggests by truncated, out of context apparent quotation from an early article by Noah Webster that he knew and espoused the concept in 1788, three years before De Bouffler. Resort to American Magazine for February, 1788 reveals no such statement as the quoted portio nof the note, though it *does* show that Webster, who was editor of the magazine, made an impassioned editorial plea in quite different words for recognition of a common law copyright. He said nothing about technical information, inventions or patents, however.

stitutional Assembly in 1791.[35] "It happens that those who started using the word 'property' in connection with inventions had a very definite purpose in mind: they wanted to substitute a word with a respectable connotation 'property' for a word that had an unpleasant ring 'privilege'." [36]

Modern day adherents of the "natural property right" of inventors in alleged trade secret technical information appear, like De Bouffler, to be motivated by considerations of expediency—their purpose being to find *some* means by which constitutionally unpatentable technical information can be protected as "property" so as to permit exclusion of others on one pretext or another from the use of the information.

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[35] The ruse was immediately successful. The French patent law passed that year contained a preamble stating, *inter alia*, "that every novel idea whose realization or development can become useful to society belongs primarily to him who conceived it, and that it would be a violation of the rights of man in their very essence if an industrial invention were not regarded as the property of its creator." Machlup and Penrose, *supra*, note 33 at 11.

[36] Machlup et al note 33 *supra* at p. 14. Many proponents of natural property rights in technical information argue in terms of John Locke's thesis that man has a natural right to the fruits of his labor. The rationale is that the product of one's labor, even if an intangible such as technical information, must, therefore, be recognized as one's property.

The rationale breaks down because technical information, unlike a tangible object, cannot be simultaneously exhibited to others and retained within the sole domination and control of its originator. Moreover, the nature of technical information is such that it may be originated by a plurality of individuals at different times, with the necessary result that it cannot be exclusive property of each or any of them. As observed by Thomas Jefferson in 1813, "If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone and the receiver cannot dispossess himself of it." Letter to Isaac McPherson, VI Writings of Thomas Jefferson (Washington ed.) at p. 180 (1814).

Our Constitution originated under circumstances totally inconsistent with the concept of a natural property right in technical information.[37] At least initially, many of the founders of our nation, including Thomas Jefferson, were opposed to monopolies of any sort including specifically patents.[38] Nevertheless, it was ultimately agreed to authorize a carefully limited patent system for the purpose of promoting "Progress of Science and useful Arts" and for no other purpose.[39] No record exists anywhere that

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[37] See the detailed discussion *infra*, p. 22a to 41a; see also the authorities therein cited.

[38] Thus Jefferson, writing to Madison from Paris on July 31, 1788, observed that "saying there shall be no monopolies lessens the incitements to ingenuity, which is spurred on by the hope of a monopoly for a limited time, as of 14 years; but the benefit even of limited monopolies is too doubtful to be opposed to that of their general suppression." The Papers of Thomas Jefferson, Vol. XII, p. 440.

[39] James Madison, one of the most active of the Constitutional framers, responded to Jefferson, note 38 *supra*, in a letter of October 17, 1788 that

> "With regard to monopolies, they are justly classed among the greatest nuisances in Government. But is it clear that, as encouragements to literary works and ingenious discoveries, they are not too valuable to be wholly renounced? Would it not suffice to reserve in all cases a right to the public to abolish the privilege, at a price to be specified in the grant of it? Is there not, also, infinitely less danger of this abuse in our Governments than in most others? *Monopolies are sacrifices of the many to the few.* Where the power is in the few, it is natural for them to sacrifice the many to their own partialities and corruptions. Where the power, as with us, is in the many, not in the few, the danger cannot be very great that the few will be thus favored. It is much more to be dreaded that the few will be unnecessarily sacrificed to the many." Letters and Other Writings—Madison, Vol. I, 1769-93, p. 427.

In Madison's parlance, trade secrets, which *are* "sacrifices of the many to the few" are monopolies. Moreover, the usurpation in the "few" of power over technology which trade secrets represent as now practiced in modern industry (*supra*, pp. 7 to 12) represents a very great danger to many individual liberties. See Kane quoted *supra* at 21.

suggests the Founding Fathers were aware of, discussed or were in any way influenced by any concept of trade secrets or that they ever recognized such a possibility as an alternative to patents.[40]

Consonant with the limited power afforded it, Congress promulgated a patent system, initially in 1790, and thereafter through a continuous chain of statutes. This Court first considered and rejected the notion that the patent system is based upon a natural right of inventors in *Pennock* v. *Dialogue*, 27 U.S. 1, 16-17 (1829) and concluded it to be solely a creature of positive law in which the public interest, and *not that of the inventor*, was paramount.[41] The Court was careful to point out that "the Constitution . . . contemplates . . . that this exclusive right shall exist but for a limited period, and that the period shall be subject to the discretion of Congress. The Patent Act of the 21st of February, 1793, ch. 11, prescribes the terms and conditions and manner of obtaining patents for invention; and *proof of a strict compliance with them lies at the foundation of the title acquired by the patentee.*" [42]

Four years later in *Shaw* v. *Cooper*, 32 U.S. 390, 318 (1833), the Court again stressed that the exclusive right

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[40] See generally the voluminous historical documents relating to the Constitutional Convention, including journals of its participants included in House Document No. 398, 69th Cong., 1st Sess. and in Farrand, "The Records of the Federal Convention of 1787."

[41] This primacy of public interest is a fundamental cornerstone of federal patent policy under the Constitution, from which this Court has never departed. It has been reiterated most recently in *Deepsouth Packing Co., supra*, p. 21, 406 U.S. at 531. Trade secret monopolies, of course, invert the fundamental order of priorities and for this additional reason are antagonistic to the patent system.

[42] The Court in *Pennock* also observed that "[i]t has not been, and indeed cannot be, denied that an inventor may abandon his invention and surrender or dedicate it to the public. This inchoate right, thus once gone cannot afterwards be resumed at his pleasure; for, where gifts are once made to the public in this way, they become absolute." 27 U.S. 1, 16.

available under the patent laws, even though perhaps justly deserved by inventors "*can only be secured by a substantial compliance with every legal requisite.* His exclusive right *does not rest alone upon his discovery,* but also upon the sanctions which have been given to it and the forms of law with which it has been clothed." [43]

Similarly in *Gayler* v. *Wilder*, 51 U.S. 477, 494 (1850), it was said that

> "the discovery of a new useful improvement is vested by law with an inchoate right to its exclusive use, which he [the inventor] may perfect and make absolute by proceeding in the manner which the law requires. . . .
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> * * * *
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> Now, the monopoly granted to the patentee is for one entire thing; it is the exclusive right of making, using, and vending to others to be used, the improvement he has invented, and for which the power is granted. *The monopoly would not exist at common law and the rights, therefore, under it can not be regulated by the rules of the common law. It is created by the Act of Congress; and no rights can be acquired in it unless authorized by statute and in the manner the statute prescribes.*"

To the same effect, the Court in *Brown* v. *Duchesne* stated:

> "*But the right of property which a patentee has in his invention, and his right to its exclusive use, is derived altogether from these statutory provisions; and this court has always held that an inventor has no right of property in his invention, upon which he can maintain a suit, unless he obtains a patent for it, according to the Acts of Congress;* and that his rights are to be regulated and measured by these

[43] Unless otherwise stated, emphasis in quotations hereinafter is added.

laws, and cannot go beyond them." 60 U.S. 183, 195 (1857).[44]

Again, in *Marsh* v. *Nichols*, 127 U.S. 605 (1888) this Court emphasized that:

> ". . . *the patent for an invention conveys nothing which the Government owns or its predecessors ever owned. The invention is the product of the inventor's brain, and if made known would be subject to the use of any one, if that use were not secured to him.* Such security is afforded by the Act of Congress when his priority of invention is established before the officers of the Patent Office, and the patent is issued. The patent is the evidence of his exclusive right to the use of the invention; it therefore may be said to create a property interest in that invention. Until the patent is issued there is no property right in it, that is, no such right as the inventor can enforce. Until then there is no power over its use, which is one of the elements of a right of property in anything capable of ownership. . . ."

Most recently in *Graham* v. *John Deere Co.*, 383 U.S. 1 (1966), this Court as again reaffirmed that "[t]he patent monopoly was not designed to secure to the inventor his natural right in his discoveries."

Congress has itself clearly recognized that its power to legislate as to patents is in no sense dependent upon any alleged natural right of property in information. Thus, in House Report No. 1494, 52nd Congress, First Session, written as an incident to the codification of the patent statutes in 1894, it was stated that

> "The object to be attained and the reason for the constitutional grant of power are imbedded in the grant itself. They are 'to promote the progress of science and the useful arts.' There is nothing said

[44] Compare the efforts of Kewanee in *this* case to maintain a suit on the basis of "natural" or contractual property right.

about any desire or purpose to secure to the author or inventor his 'natural right to his property'. The monopoly given him is avowedly given, not primarily for his benefit, but for the benefit of society at large. The claims made so often, especially of recent years, that the author or inventor has a natural right to the exclusive use of his production, and is therefore entitled, as of course, to legislation securing to him the full enjoyment of this right, does not seem to have been specifically passed upon by the fathers; but one thing is absolutely certain, they did not make this constitutional grant of power upon any such ground. Much confusion of thought has arisen from the assertion of this right as an innate, absolute right existing in the individual, and a contemporaneous neglect to examine the limitation of the power given in the premises to Congress.

"It is perhaps safe to say that for the past twenty or thirty years no Committee on Patents has had an existence which has not had the fortune to listen to long and very interesting arguments claiming the existence in the author or inventor of this right, and the duty of Congress to give by legislative enactment full and complete enjoyment of that right. Whatever may be the correct conclusion as to the existence of any such right, the duty of Congress is measured by its power, and that power can be no broader than the words conferring it.

". . . It is sufficient to read the words of the grant in their plain every-day meaning to discover that the good of society was the only thing provided for, or intended to be provided for. . . ."[45]

As well said by Mr. Justice Brandeis, dissenting, in *International News Service* v. *Associated Press*, 248 U.S. 215, 250 (1918):

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[45] A second Congressional rejection, in much the same language, of the natural right argument, was made in connection with copyright legislation. See House Report No. 2222, 60th Congress, 2nd Session (1909) at page 7.

". . . An essential element of individual property is the legal right to exclude others from enjoying it. If the property is private, the right of exclusion may be absolute; if the property is affected with a public interest, the right of exclusion is qualified. But the fact that a product of the mind has cost its producer money and labor, and has a value for which others are willing to pay, is not sufficient to insure to it this legal attribute of property.[46] The general rule of law is, that the noblest of human productions—knowledge, truths ascertained, conceptions, and ideas—become, after voluntary communication to others, free as the air to common use. Upon these incorporeal productions the attribute of property is continued after such communication only in certain classes of cases where public policy has seemed to demand it." [47]

Essentially to the same effect Justice Holmes, concurring with the majority in the same case, said "[p]roperty, a creation of law, does not arise from value, although exchangeable—a matter of fact. Many exchangeable values may be destroyed intentionally without compensation. *Property depends upon exclusion by law from interference* . . ." [248 U.S. at 246].

In short, property rights in technical information do not arise simply in consequence of the expenditure of

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[46] Importantly, this fact—i.e. that technical information costs money and labor, and has a value for which others would be willing to pay—is one of the bases advanced by petitioner and many of its amici for protection of the trade secret "property" rights denied in the Court below. See *infra*, Section E, p. 47.

[47] The exceptions recognized in the immediately following passage are those which are copyrightable and "the inventions and discoveries [constituting] . . . the few comprised within the patent law."

In addition, Justice Brandeis recognized cases in which courts "interfere to prevent curtailment of plaintiff's enjoyment of incorporeal productions" which are based upon "breach of contract or of trust, or upon unfair competition" but gave *no* indication that incorporeal productions already forfeited to the public could be protected on any ground.

time, effort, labor or ingenuity;[48] nor do they arise because the time, effort, labor and ingenuity required a substantial financial outlay.[49]

D. THE CONSTITUTION AND FEDERAL LAW PRECLUDE THE PERMANENT INJUNCTION SOUGHT

There being no "natural" property in intangibles such as technical information, petitioner's claimed right to a permanent injunction must stand or fall on common or statutory law of Ohio. The circumstance that there was no common law right in trade secrets or inventions generally recognized prior to the adoption of the Constitution, suggests strongly the lack of basis for any argument that power to regulate trade secret rights being

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[48] This was recognized in English courts as early as 1571 in the case of *Matthey's Patent* for a particular kind of knife handle held invalid on the ground that the cutlers' guild had previously made similar knives with a somewhat different type of handle and that the change was within the ordinary skill of the art. The court observed, *inter alia*, that "he could never have benefit from this patent *although he labored very greatly therein.*" See Prager, "Standards of Patentable Invention From 1474 to 1952," 20 University of Chicago L.R. 69, 71-72 (1952) and authorities cited therein.

[49] Clearly only some financial outlays result in the acquisition of property. Many others are made in exchange for *services* of one sort or another including medical, legal, and accounting assistance, personal grooming, household help, etc. Many such services can be performed only through considerable expenditure of time, effort, labor and ingenuity; yet no one argues that the product of these services is "property" of any sort.

By far the major portion of research and development outlays is payment for the services of trained personnel such as engineers, chemists and the like who conduct the investigations. No reason has been advanced for viewing the product of the services of these people any differently from the product of the services of physicians, dentists, lawyers, accountants, beauticians, barbers, maids or waiters.

"not given Congress was of course reserved to the states." [50]

Rather, it seems clear on the fact of the Ninth (2a) and Tenth (2a) Amendments to the Constitution that any powers or rights not within the knowledge of the people at the time the Constitution was adopted, were intended to be reserved to the people under the Tenth Amendment or retained by them under the Ninth Amendment at least until expressly delegated to state or federal government. Any other interpretation would be in direct derogation of the sovereignty of the people, perhaps the most basic tenet of our particular form of government.

There is no pretense here of an express reference to trade secrets in the Constitution of Ohio—and this is understandable inasmuch as Ohio had been a state well before the emergence of the trade secret concept. Nevertheless the lack of *in haec verba* mention of trade secrets in the earlier federal Constitution is urged by petitioner's amici to be significant to show an intention not to preempt trade secret law at the federal level.

In short, the intent of the Constitutional framers as to trade secrets was non-existent and questions of that

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[50] The quotation is from the brief amicus curiae of the Licensing Executives Society, pp. 49-50; see also e.g. the brief amicus of the Manufacturing Chemists' Association, pp. 20-22; brief amicus of Burroughs Corp., pp. 19-23 and the brief amicus of the Bar Association of the Distirct of Columbia, pp. 9-10. As to the latter, it should be noted that the powers of both state and federal governments, under our system of government, were delegated by the *people*. Hence, it is immaterial, even if correct, that "the states did not delegate any power to regulate rights in secret inventions," (id. at 9). It seems fair to suggest, moreover, that the people never delegated to either state or federal governments the full power to regulate "secret inventions"—hence the dicta in some cases, e.g. *United States* v. *Dubilier Condenser Corp.*, 289 U.S. 178 (1933) regarding an inventor's privilege (rather than enforceable right) only to keep his invention *secret*, i.e., to refrain from telling it to *anyone* if he so chooses.

intent are relevant here only insofar as they demonstrate the meaning of the patent laws and the constitutionally guaranteed right of every citizen to pursue a trade or business and thereby show conflict with Ohio law.

1. Preemption by the Patent Clause and Statutes

Grants by the states of exclusionary rights in science and useful arts which have the net effect of retarding or even stifling progress are, regardless of purpose, in the teeth of the Constitutional mandate for promotion of progress in these fields. Hence, to the extent that Congress exercises its patent power no state may engage in activities that are contrary to, or otherwise designed to frustrate, the federal action taken.

a. *Patent Policies*

For example, the constitutional patent clause contains a mandatory minimum level standard of invention which *must* be met before a valid patent can issue.[51]

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[51] See *infra*, 5a to 50a. For the states to grant *de facto* monopolies under the "trade secret" label in technical information which falls short of the high constitutional standard of invention is in the teeth of the patent power *and* in derogation of Fourteenth Amendment guarantees that every citizen is entitled to pursue an ordinary calling (37a to 41a, *infra*). Hence the suggestion in Adelman "Secrecy and Patenting: Some Proposals for Resolving the Conflict", 1 APLA Quarterly Journal 296 (1973) that the decision below be implemented only in regard to "patentable" inventions and the states be permitted to grant trade secret protection to technical information falling *below* the constitutional standard of invention, flies in the face of constitutional strictures. In addition, the suggestion would be cumbersome to implement.

In line with the "notorious difference" between Patent Office and court strictness of application of patentability tests which this Court referred to in *Graham*, *supra*, n. 10, "[i]t is now a truism . . . that if you sit around the Patent Office long enough, and change your claims often enough, you will eventually get some kind of a patent on almost anything". M. Shapiro, "The Supreme Court and Administrative Agencies", The Free Press (New York 1968) p. 189. Most patents are found invalid, if litigated—but

Similarly, the constitutional patent clause was drafted at a time when the idea of a written specification was very new.

The earliest patents for inventions, including new importations, granted in England and the Italian city states preceded the introduction of the printing press in Europe. In those early times and continuing for more than two centuries subsequent to its adoption, dissemination of technical information by the written word was extremely rare. The accepted fact was that an "inventor" (including an importer) made his invention public by introducing it into commercial use.[52] While the notion of a written patent specification appeared in England, spontaneously, about the middle of the seventeenth century, England had no statute requiring the submission of a written

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litigation is time-consuming and expensive and should not be a requisite to determining whether the rationale below applies.

See also generally Weissman, "Testimony Before the Senate Judiciary Committee, Subcommittee on Patents, Trademarks, and Copyrights, Relating to S. 1321 (Hart bill)", 55 J. Pat. Off. Soc'y 604 (1973) wherein administrative pressures to issue ever increasing numbers of lower and lower quality patents are quite fully and candidly exposed.

[52] See Federico, "Origin and Early History of Patents", 11 J.Pat. Off. Soc'y 292 (1927) which states at p. 304 that

> "The consideration of the patent grant was the creation of a new industry and, as has already been noted, knowledge was given to the public by the actual establishment of the industry and, in some cases, by the teaching of apprentices. The patents in general contained no description, either in writing or by a drawing, and such description did not seem to have been necessary. The change to a requirement of a formal written disclosure, or specification was gradual. A few of the early seventeenth century patents contained a description of the invention and the custom of presenting a specification increased with time. These specifications were made solely on the patentee's initiative and for the purpose of making the scope of their grants more certain."

specification until 1852,[53] well after the promulgation in this country of the various general patent laws of 1790, 1793 and 1836, each of which required a full and complete written description analogous in every respect to that required by present 35 U.S.C. 112.[54]

Thus, to a point in time not long before the Constitution was adopted, commercial use of an invention was definitely synonymous with making it public. There is no indication that the requirement, in the first and subsequent United States patent laws, for a written specification was intended to change this state of affairs. *Per contra*, there is every indication that this was based upon a desire to "*promote* progress" by disseminating written information quickly and freely. As one writer has suggested, the intent of the constitutional patent clause and the patent laws which implemented it "was to encourage domestic invention, but the actual commercial introduc-

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[53] See Bugbee, "Genesis of American Patent and Copyright Law" Washington Public Affairs Press (1967) at p. 41.

[54] One of the vices of the "trade secret" concept as espoused by petitioner and its amici is that an inventor often submits to the Patent Office a specification couched in vague generalities, including a detailed description of a few crude early experiments and obtains a patent, while, at the same time, withholding from the Patent Office the "know-how" requisite to actual commercial practice of the invention. Such deliberate withholding of information requisite to apprise the public of precisely how to make and use the invention under 35 U.S.C. 112 is a specific ground for invalidity of a patent under the provisions of 35 U.S.C. 282. However, it is difficult for the Patent Office, lacking machinery to compel disclosure of evidence, including even subpoena power, to police the completeness of the specification effectively. It is noted that on the order of 70 to 75 per cent of litigated patents are held invalid in the courts, many at least in part on grounds of deficiency under 35 U.S.C. 112.

The fact that many patent owners use trade secret law to "protect" know-how outside the patent laws in derogation of 35 U.S.C. 112, is the subject of comment by Doerfer in "The Limits of Trade Secret Law Imposed by Federal Patent and Antitrust Supremacy," 80 Harvard L.R. 1432, 1442-4 (1967).

tion of the invention was left to business enterprise. It was not intended to require that the inventive thought should be withheld until the inventor could incorporate it in actual manufacture. *The intent was to bring about publicity of the ideas as soon as possible as an incentive for others to improve thereon and to stimulate and advance the useful arts.*" [55]

Decisions of this Court are consistent with the suggestion that the written specification was not intended to supplant commercial use as a means of introducing technology to the public, but was intended as a stimulant to early disclosure.[56]

One of this Court's earliest patent decisions, *Pennock* v. *Dialogue*, *supra*, p. 25, clearly expresses the principle that deliberate forfeiture by the inventor of the inchoate right to a patent constitutes a gift to the public.[57]

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[55] See Michel, A.J., "Historical Development of Principal Patent Systems," (page 19), a thesis available in the Library of Congress under Card No. T215M43.

[56] Pointedly there is *no* evidence that it was intended to so qualify the history of centuries as to place technical information in the public domain via commercial use *only* if completely disclosed by the marketed product, thereby giving rise to that hypocrisy of modern patent law—the "secret public use". See e.g. the brief amicus of Manufacturing Chemists Association, p. 30-31; P. Br. 28-32.

Note in this connection the fact that, as pointed out by Adelman *supra*, note 51, recognition of a protectable "trade secret" in commercially used technology where the product sold or used does not reveal the "secret" would result in an arbitrary, unfair and random classification among proprietors of technology as to who would be eligible for protection and who would not.

[57] *See* the language quoted in note 42 *supra*. *Pennock* is cited in *Metallizing Engineering Co.* v. *Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516 (2 Cir. 1946)—a case heavily relied on by petitioner (P. Br. 29-30)—as supportive of the conclusion that a use can be both commercial and secret but the real thrust of *Pennock* is that commercial use of technical information was at that time, as earlier, understood to constitute a gift to the public absent *timely* steps to acquire a patent

The same thought appears clearly in the quotation from *Kendall* v. *Windsor*, 62 U.S. 322 (1858) relied upon by the court below in its decision in this case (478 F.2d at 1082; Pet. A14).

In *Consolidated Fruit Jar Co.* v. *Wright*, 94 U.S. 92 (1877), this Court squarely held that commercial use in excess of the statutory period without filing a timely patent application results in an unqualified gift to the public, and hence places the pertinent technology within the public domain.

As this Court put it:

> "Inventors are a meritorious class. They are public benefactors. They add to the wealth and comfort of the community, and promote the progress of civilization. A patent for an invention is as much property as a patent for land. The right rests on the same foundation, and is surrounded and protected by the same sanctions. There is a like larger domain held in ownership to the public. Neither an individual nor the public can trench upon or appropriate what belongs to the other. The inventor must comply with the conditions prescribed by law. If he fails to do this he acquires no title, and his invention or discovery, no matter what it may be, is lost to him, and is henceforward no more his than if he had never been in anywise connected with it. *It is made, thereupon, as it were by accretion, irrevocably a part of the domain which belongs to the community at large.* The invention here in question is within this category." [58]

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[58] Amicus the Bar Association of the District of Columbia relies on the 6-3 decision in *Gayler* v. *Wilder*, 51 U.S. 477 (1850) to allege that this Court has recognized "interplay of common [trade secret] law and patent law" (Br. 11) by holding an alleged "secret public use" not to defeat a later applied for patent. But as the amicus is forced to admit (p. 11) the question of the possible

As petitioner somewhat backhandedly recognizes (P. Br. 30-31), *Egbert v. Lippmann*, 104 U.S. 333 (1881) and *Hall* v. *Macneale*, 107 U.S. 90 (1882) are consistent with *Consolidated Fruit Jar*. Both *Hall* and *Smith & Griggs Mfg. Co.* v. *Sprague*, 123 U.S. 141 (1887), which follows *Hall* specifically rejected the notion that elements "hidden from view" as an incident to commercial use are "secret".

See also *Corona Cord Tire Co.* v. *Dovan Chemical Corp.*, 276 U.S. 610 (1927) where automobile tire inner tubes cured with diphenylguanidine—a fact not discernible by inspection of the tubes—which were used publicly by a third party more than the then two year grace period prior to the patent application, were persuasive on the question of dedication to the public.

Against this array of authority petitioner and its amici rely on later lower court decisions,[59] none of which reached this Court, to insist that a "public use" may be so conducted as to reserve "trade secret" rights in the user. These cases include *Macbeth-Evans Glass Co.* v. *General Electric Co.*, 246 F. 695 (6 Cir. 1917); *Metallizing* cited supra, n. 57, and *Huszar* v. *Cincinnati Chemical Works*, 172 F.2d 6 (6 Cir. 1949). Notably, *not one* of them is concerned with whether a perpetual injunction may issue to aid a putative inventor in reserving to himself a "secret" in technology used com-

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dedicatory effect of the use was not argued in *Gayler*—and the later decision in *Consolidated Fruit Jar* is in any event controlling.

Consolidated also clearly demonstrates error in *Mine Safety Appliances Co.* v. *Electric Storage Battery Co.*, 405 F.2d 901 (CCPA 1969) cited and quoted by petitioner (p. 28) by making clear that patent laws operate automatically to force technical information into the public domain on the happening of statutorily defined events.

[59] See P. Br. 28-32; brief amicus of MCA, 29-31; brief amicus of American Patent Law Association 6-7.

mercially for more than one year.[60] Rather, all find that the commercial use whether or not embodying an alleged "secret" bars a patent. Logic would seem to compel that the same commercial use in excess of the grace period of 35 U.S.C. 102(b)(3a) would equally bar issuance of an injunction to enforce what *Metallizing* refers to as "practical monopoly by means of secrecy." (153 F.2d at 519).

In opposition to logic, petitioner and its amici advert to this Court's alleged recognition of a right to hold information secret.[61] But the language quoted is in every instance dictum and when read in context suggests only that a self-styled inventor is not under a legal compulsion to obtain a patent or to make a public disclosure of any kind. As said in *Bates* v. *Coe*, 98 U.S. 31, 45-6 (1878) "Inventors *may*, if they *can* keep their inventions secret. . . ." There is no suggestion anywhere in this Court's decisions of a legally protectable *right* to secrecy in technology much less a holding that the law will aid and abet one who claims "secrets" in unpatented and unpatentable technology in obvious frustration of the constitutional patent policy favoring free circulation of ideas,[62] by enjoining others from competitively using those "secrets".

In sum, this Courts' pertinent decisions are overwhelmingly to the effect that the forfeitures effected by the

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[60] *Macbeth-Evans* was decided under R.S. 4886 when the bar period was two years and the principle otherwise unchanged.

[61] See e.g. P. Br. 42-43.

[62] Significantly *Becher* v. *Contoure Laboratories, Inc.*, 279 U.S. 388 (1929) (P.Br. 43) involved a suit to compel assignment to the true inventor's corporate assignee of a patent which the inventor's co-worker wrongfully obtained in his own name and would not be in any way affected by affirmance of the decision below. Neither, insofar as the opinions show would the actual holdings in *United States* v. *Dubilier Condenser Corp.*, *supra*, note 50, or *Dr. Miles Medical Co.* v. *John D. Park & Sons Co.*, 220 U.S. 373 (1911) heavily relied on at P. Br. 42-3.

patent laws—whether as a consequence of patent expiration,[63] patent invalidity[64] or failure to file a timely application when coupled with commercial use in excess of the statutory grace period[65]—are automatic and *depend not upon what the public actually knows but upon what the public has a free right to use*, known or unknown.[66]

b. *Reasons for Preemption*

Petitioner and its amici nonetheless suggest[67] the power of the states to be coextensive with that of the federal

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[63] See *Brulotte* v. *Thys*, *supra*, note 19; *Scott Paper Co.* v. *Marcalus Mfg. Co.*, 326 U.S. 249 (1946).

[64] E.g. *Lear, Inc.* v. *Adkins*, 395 U.S. 653 (1969); *Sears, Roebuck & Co.* v. *Stiffel Co.*, 376 U.S. 225 (1964); *Compco Corp.* v. *Day-Brite Lighting, Inc.*, 376 U.S. 234 (1964).

[65] *Supra*, pp. 35 to 37.

[66] Petitioner and its amici seem to suggest that so long as a proprietor of technology has a "secret" he must receive some *quid pro quo* in the way of protection to part with it. But the reward afforded by the patent laws is *not at all* for giving up a right to keep technology secret, but for timely disclosure of an invention beneficial to society. Beginning with the 1790 patent act, the inventor has always been required to disclose his invention in exchange for a *chance* of reward rather than a guarantee of reward, consistent with the constitutionally mandated policy that the public interest, not the inventor's, is paramount.

To approximately 1879, the applicable rules of the Patent Office routinely made abandoned patent application disclosures publicly available. Even today abandoned and, sometimes, pending patent application disclosures are publicly available in a plurality of situations where no "reward" for the disclosure is given. For example, European countries including those with patent registration systems where patents issue virtually immediately require that the United States counterpart application be supplied as a basis for claiming a priority right under tht Paris Convention and in such cases, a copy of the United States application becomes promptly available from the foreign patent office. For another example, abandoned applications mentioned in issued patents are routinely available.

[67] E.g. P. Br. 37-40; brief amicus of the Chamber of Commerce 8-12; brief amicus of MCA 32-35.

government to protect technical information within the scope of 35 U.S.C. § 101 and argue that, federal and state objectives being different, there is no reason why "patent" powers cannot coexist in the same manner as state and federal copyright laws under *Goldstein* v. *California*, 412 U.S. 546 (1973).

There are several answers to this position. One is that regardless of possible differences in *objectives*, the results of concurrent patent and trade secret "property" protection within the scope of 35 U.S.C. § 101 are overlapping and disparate, with the trade secret protection being in frustration of patent policies.

Another is that *Goldstein* itself recognizes and reaffirms the preemptive effect of the patent laws vis-a-vis state unfair competition laws—and "trade secrets" are, after all, just one variety of unfair competition (P. Br. 46).

Still another is that *Goldstein* relates to copyrights which are narrow and unique rights, protective only against copying, and not infringed by another's original creation of even a closely related work. The patent on the other hand is an absolute monopoly over a segment of technology which prevents others from engaging in its use in any way.[68] State and federal copyright collisions

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[68] See Fox, "Monopolies and Patents", (Toronto 1947) at pp. 14-15 where it is stated:

> ". . . If an independent author arrives at the same results by independent means, the copyright owner has no right to prevent to that extent the invasion of his monopoly. The difference between the monopoly conferred by patent and by copyright will be immediately perceived. If it could be shown, as a matter of fact, that two precisely similar works were in fact produced wholly independently of one another, the author of the work published first would not be entitled to restrain the publication by the other author of that author's independent original work. What is given is the merely negative right to prevent the appropriation of the labours of an author by

are hence easily avoidable—but state and federal patent collisions with both operating inside the scope of 35 U.S.C. § 101 would be inevitable. Hence, federal law necessarily governs pursuant to the Supermacy clause (1a) and the conflicting state law is void. See *Sears* and *Compco*, *supra*, note 64.

The fact that some state patents were granted in the years prior to the Constitution as pointed out in *Goldstein*, *supra*, is not, as petitioner argues (n. 7, pp. 25-26) supportive of a present right in the states to grant "patents" or other exclusionary property rights within the scope of 35 U.S.C. 101. Congress in the Patent Act of 1793 [69] specifically conditioned the right to a federal patent in the very same subject matter area now defined by § 101 [70] for a previously state-protected invention upon the relinquishment of the state patent *and thus made clear an intent to preempt the field absolutely.* Failure of subsequent patent acts to deal with the matter can, no doubt, be attributed to the fact that inventors ceased seeking state grants after the federal patent laws became effective.[71]

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another. A patent right, on the other hand, is quite different. The monopoly is absolute, and once an inventor has complied with the provisions of the Patent Act, and a valid patent has issued to him, he can prevent the exercise of that invention by anyone else who has, quite in the belief that he was actually inventing something new, and without knowledge of the patentee's patent, invented the same thing, even simultaneously with the patentee."

[69] 1 Stat. 318 § 7.

[70] 1 Stat. 318 § 1; see also the Reviser's note to present 35 U.S.C. § 101.

[71] None of the states had established procedures governing the manner of applying for a patent—hence, it was necessary for an inventor to make a separate petition to and meet with the legislature in each state, a time consuming, cumbersome and expensive undertaking. No doubt this was one of the reasons why Madison noted in The Federalist Papers, No. 43, that "The States cannot . . . separately make effectual provision for . . ." patents.

Patents, unlike copyrights, are also powerful instruments of interstate commerce. As the Court recognized in *Blonder-Tongue Laboratories* v. *University of Illinois Foundation*, 402 U.S. 313, 346 (1971), the circumstances obtaining under prior law when a patent had been held invalid as to one manufacturer but was presumed valid as to all others tended to promote artificial marketing and pricing inequalities and to interfere with the free competitive policy of the antitrust laws. For the states to compete among themselves and with the federal government in the grant of exclusionary rights in subject matter defined by 35 U.S.C. § 101(3a) is hence to derogate the exclusivity of federal interstate commerce power [72] and to disrupt significantly the effectiveness of federal policies promulgated under that power, such as that expressed in the antitrust laws.

Another compelling reason why the power to grant exclusionary rights within the scope of the 35 U.S.C. 101 subject matter definition is and must be confined to the operation of federal patent law, is the preeminent right under the Fifth (1a) and Fourteenth (2a) Amendments to the Constitution (37a to 41a) of every citizen to utilize his own talents and skills in the pursuit of a trade or calling.[73] This right has a necessary interaction with the patent laws, as explicated, *infra*, 37a to 47a. The paramount interest of society is in preserving the rights of all citizens in the free use of their own skills and talents—a goal which would be undermined by indiscriminate patent grants or other grants of "property" in technology. The federal patent laws, by strictly defining criteria for patentable invention that neither interfere with the free circulation of technical information generally nor with its free use in pursuit of an ordinary trade or calling, co-

[72] *Gibbons* v. *Ogden*, 22 U.S. 1 (1824).

[73] *Allgeyer* v. *Louisiana*, 165 U.S. 578, 589-90 (1886) quoted *infra*, 38a; *Greene* v. *McElroy*, 360 U.S. 474 (1959).

operate with the Fifth and Fourteenth Amendments. Exercise by the states of competing powers based upon competing and subsidiary policy objectives would be detrimental to the preservation under the patent laws of the constitutionally mandated individual rights. For a more detailed discussion of these rights as they have been explicated by this Court and the manifest relationship between the preservation of these rights and the strict maintenance of the constitutional standard for patenable invention, see, *infra*, 37a to 41a.

In its exercise of the patent power, Congress has been careful not to disturb objectives and policies dictated by *other* constitutional mandates. The complex interplay of the patent system with federal antitrust policy under the commerce clause and with society's goal, committed to federal supervision, of preserving rights of individual citizens *inter alia*, in their use of their talents and skill in pursuit of a trade or calling is a matter of such delicate balance that intervention by the states in furtherance of secondary policy objectives could not be countenanced. Congress having preempted the grant of property rights in technical information defined by 35 U.S.C. 101, the states may not make conflicting grants.[74]

2. Considerations Affecting Preemption Arising Solely Under the Commerce Clause

Some of petitioners' amici have stressed the alleged importance and even necessity to international commerce and to the United States balance of payments position in

[74] The question of whether the states *may* take action to protect inchoate property rights in technical information otherwise defined by 35 U.S.C. 101 during the period when an invention is being completed, a patent application filed and that application examined in the Patent Office, is not within the scope of this case. There is accordingly no intention herein to intimate one way or another what judgment should be made on that question at such time as it is properly presented in another case.

world markets of preserving state trade secret "property rights" in subject matter defined by 35 U.S.C. 101.[75]

United States patent law and policy is, of course, irrelevant to foreign commerce because, as this Court has repeatedly held, United States patents have no extraterritorial effect.[76]

Power over foreign commerce, however, is exclusively the province of the federal government under the Commerce clause (1a). We know of no basis—and petitioners' amici suggest none—pursuant to which individual trade secret policies of the states could be validated as a means for fostering foreign commerce in direct derogation of an exclusive federal power in which the states, pursuant to the Supremacy clause (1a), may not intermeddle.

Hence, to the extent that the trade secret "property" here in issue is sought to be justified as a spur to foreign commerce, the argument must be rejected, and the matter left to such future legislative action as Congress may elect to take.[77]

3. Considerations Affecting Preemption Arising Solely Under the Fifth and Fourteenth Amendments.

The question of whether the state of Ohio may permanently enjoin respondents in this case from the use of

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[75] See e.g., the amicus briefs of the Chamber of Commerce, especially at pp. 25-26 and 35; the Association for Advancement of Invention and Innovation (p. 7); the Licensing Executives Society (App. A., p. 92); Southwire Company (p. 4); Optical Coating Laboratory, Inc. (p. 8) and Rohr Industries, Inc. (pp. 7-9).

[76] See *Brown* v. *Duchesne*, supra, p. 26 at 195; see also *Deepsouth Packing Co.* v. *The Laitram Corp.*, *supra*, p. 21.

[77] In fairness, we do not understand that the record of *this case* really raises any question directly relevant to foreign commerce considerations. Hence, the Court should not in any event rest its decision here on such considerations.

the alleged trade secret "property" in issue is one which, independently of the patent power and its exercise, must be examined for repugnance of the state law-authorized injunction to the property right of every citizen, arising under the Fifth and Fourteenth Amendments, to utilize fully his own talents and skills in pursuit of a lawful trade or calling.

In *Greene* v. *McElroy*, *supra*, note 73, this Court was faced with the question of whether arbitrary revocation of a security clearance without affording the injured person an opportunity to cross-examine his accusers or confront the adverse evidence, was a valid exercise of federal administrative power in the circumstance that the employee was seriously prejudiced in his ability to pursue his lawful calling and to earn his living. This Court, having due regard to "the right to hold specific private employment and to follow a chosen profession free from unreasonable governmental interference, [which] comes within the 'liberty' and 'property' concepts of the Fifth Amendment," [78] held the arbitrary administrative action to be unjustified.[79] The facts show that by the loss of the secret clearance on an arbitrary basis, Greene, an aeronautical engineer of considerable experience, was "formally barred from pursuit of many aspects of his profession, given the current dependence of most phases of the aircraft industry on Defense Department contracts, not only for production but for research and development work as well. . . ." 360 U.S. at 492, n. 21. While the present record contains no facts to show the precise injury to respondents if the permanent injunction issued, it is predictable that in this day of intensive technological specialization, persons like respondents who have devoted

[78] 360 U.S. at 492.

[79] In so doing the Court cited, *inter alia*, *Allgeyer*, *supra*, note 73, thus giving tacit recognition to the same right which arises under the Fourteenth Amendment and is hence binding on the states.

a considerable period of their lifetimes to research and development in a specific narrow field—here the production of the crystals which are the subject of the "trade secret property" in issue—would be injured if curtailed in their freedom to continue their studies in this area utilizing all of the skills necessarily nurtured during the period of their employment by petitioner.

If the federal government, with legitimate national security interests to protect, may not freely injure a citizen incident the pursuit of his lawful calling, logic demands that a *private* corporation having only its own individual financial "security" interests to protect, cannot freely erect barriers, in the guise of trade secret "property" or otherwise, to the pursuit by a former employee of his lawful calling. Particularly not, moreover, when the "property" is of a nature such that the right to a patent thereon has been forfeited, so that the public policy of the patent laws is subverted.

While the Fifth and Fourteenth Amendment property rights of every citizen in the use of his own skills and talents to pursue a lawful calling is often not *per se* mentioned in the cases, these rights seem to be the underlying rationale for the recognition of the concept of "free mobility of employees." [80]

At least some state courts have recognized the Fourteenth Amendment imperative,[81] but these state courts—

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[80] See generally in this connection *Wilson* v. *Clarke*, 470 F.2d 1218, 1221-2 (1 Cir. 1972); *Maloney* v. *E.I. duPont De Nemours & Co.*, 352 F.2d 936, 939 (D.C. Cir. 1965); *E.W. Bliss Co.* v. *Struthers-Dunn, Inc.*, 408 F.2d 1108 ,1112-13 (8 Cir. 1969); see also generally Blake, "Employer Agreements Not To Compete" 73 Harvard L.R. 265 (1960).

[81] E.g., *Levine* v. *E. A. Johnson & Co.*, 237 P.2d 309 (Ct. App. Cal. 1951); *Continental Car-Na-Var Corp.*, v. *Moseley*, 148 P.2d 9 (Sup. Ct. Cal. 1944); *Paraco, Inc.* v. *Owens*, 333 P.2d 360 (Ct. App. Cal. 1959).

and lower federal courts as well [82]—have most often unfortunately done so in context of an effort to "balance" the rights of the individual employee against the financial interests of the corporate employer.

The role of the Constitution in our scheme of government, coupled with elemental justice, requires that the basic Fifth and Fourteenth Amendment rights of the individual citizen be held paramount to the financial interests of corporate employers and hence in this case that the permanent injunction be refused on grounds of non-compliance with Fifth and Fourteenth Amendment guarantees.

E. TRADE SECRET "PROPERTY" IN TECHNOLOGY —A NECESSARY INCENTIVE TO CONDUCT RESEARCH??

Petitioner and its amici argue that the recognition of "property" rights in trade secrets by the states is necessary as an incentive to the investment of risk capital in research and development.[83]

This argument is not new. It is one of the most overworked cliches of apologists for drastically denigrated criteria for patentability. Notably, the same argument was presented over and over again to Congress at hearings held May 11, 12 and 13, 1971 before the Senate Subcommittee on Patents, Trademarks and Copyrights in an effort to justify relaxed patentability criteria, *de*

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[82] See the cases cited *supra*, note 80; see also e.g. *Winston Research Corp.* v. *Minnesota Mining & Mfg. Co.*, 350 F.2d 134 (9 Cir. 1965).

[83] This theme appears throughout the briefs filed on petitioner's behalf but is perhaps most markedly advanced by the Chamber of Commerce, the Manufacturing Chemists Association, Burroughs, Rohr, Optical Coating Laboratories, the Licensing Executives Society and the Association for the Advancement of Invention and Innovation.

facto removal of patents from the ambit of antitrust laws, and non-preemption by federal law of state contractual and trade secret concepts. It was made by some of the same amici and counsel who are now before the Court, including the Electronic Industries Association, an amicus for petitioner, by Edward J. Brenner, now Director of the Association for Advancement of Invention and Innovation, an amicus here; the American Patent Law Association, an amicus here and the Department of Commerce—which, albeit not an amicus in this case, is liberally quoted in the brief amicus of the Chamber of Commerce.

The same argument—in support of relaxed criteria for patentability—was earlier made at hearings before the Subcommittee on May 17 and 18, 1967 by Tom Arnold, counsel here signing the brief of the Licensing Executives Society, one of petitioner's amici. To date, the argument has not prompted legislative action.

Quite apart from the fact that the argument has become a very tired one, no evidence has ever been presented in any forum, judicial or legislative, to support it. Moreover, it seems contrary to the findings of those who *have* studied the problem. For example, "The Impact of the Patent System on Research", Study #11, Subcommittee on Patents, Trademarks and Copyrights, Committee on the Judiciary, United States Senate 85th Congress, 2nd Session (1958), by Professor Seymour Melman of Columbia University concluded that

> "There is nothing to indicate that the absence of the patent system would diminish the scope or character of scientific research in the universities. Indeed, insofar as patent pressures were removed from university scientists, this would probably strengthen the universities as producers of science and technology. *Moreover, business expenditures for research, in the estimate of this writer, would not be appre-*

ciably diminished by the elimination of opportunities for claiming patent rights. It is true that in the absence of patenting, some of the characteristics of individual research might be revised. Competitive pressures along product and production cost lines, that now impel the expansion of industrial research outlays would, however, continue to be operative." (p. 56).

Professor Melman particularly noted also that in 1940, Charles Kettering testified before the Temporary National Economic Committee and acknowledged that the sheer force of competition in the automobile industry would probably require General Motors, of which he was then Vice-President in Charge of Research, to continue to fully operate its industrial laboratories even if there were no patent laws. Professor Melman further showed in his investigation that industrial research budgets and scope of research activities at both the American Telephone and Telegraph Company and the IBM Corporation were programmed for *expansion* in the years immediately subsequent to the antitrust consent degrees entered against both firms in January 1956, requiring them "to make available to other firms many thousands of patents as well as related technical knowledge, either at reasonable rate of royalty or on a free basis altogether." (Id. p. 52). Professor Melman suggested that "the growth of product competition and competition for production cost reduction, account for the general expansion of the industrial research activity" (id. p. 53), and keep businesses under pressure to maintain and expand their research and development activities, regardless of property rights in information.

The September, 1973 report, "Barriers to Innovation in Industry: Opportunities for Public Policy Changes", prepared for the National Science Foundation by Arthur D. Little, Inc. and Industrial Research Institute, Inc. expresses the view that "innovation is impeded by two

types of barriers which are related to financial matters" (p. 20)—(1) lack of funds for development, new plant facilities and start up and (2) uncertainty about payout on invested funds. It indicates that the ideas proposed by the participants in the study—consisting of a carefully structured sample of twenty-four firms, covering a number of industrial sectors (p. 2)—suggested that the financial barriers to innovation might best be alleviated by one or more of (a) specially negotiated depreciation allowances, b) income tax reduction and (c) cost sharing on major developmental costs. Importantly, none of the firms suggested the use of decreased patentability standards or increased trade secret "property" protection as the solution to promoting investment in research and development.[84]

Comparison of this study with previous testimony before the Senate Patent, Trademark and Copyright Subcommittee (*supra*, p. 48) and the arguments of petitioners' amici here suggests that patent lawyers generally are inclined to express concern that strict observance of the exacting statutory criteria for patentable invention will adversely affect the level of investment in research and development; corporation executives who are not patent-oriented have no such fear.[85]

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[84] This study does show that the participants expressed concern about the numerous invalid patent grants, the high incidence of trivial "nuisance" patents, the non-exclusive licensing of government-held patents to industry and the ambiguity of the status of exclusive "field of use" licensing of patents. (Id. p. 19).

[85] Proof that the concern has no substance resides also in the fact that technologies in which no patents have been permitted have progressed as well or better than those where they have—e.g. computer programming and sexually reproduced plants (where no patents were permitted until the 1971 adoption of 84 Stat. 1558, § 131, the Plant Variety Protection Act).

CONCLUSION

The decision below is in all respects correct and should be affirmed.

/s/ MARY HELEN SEARS
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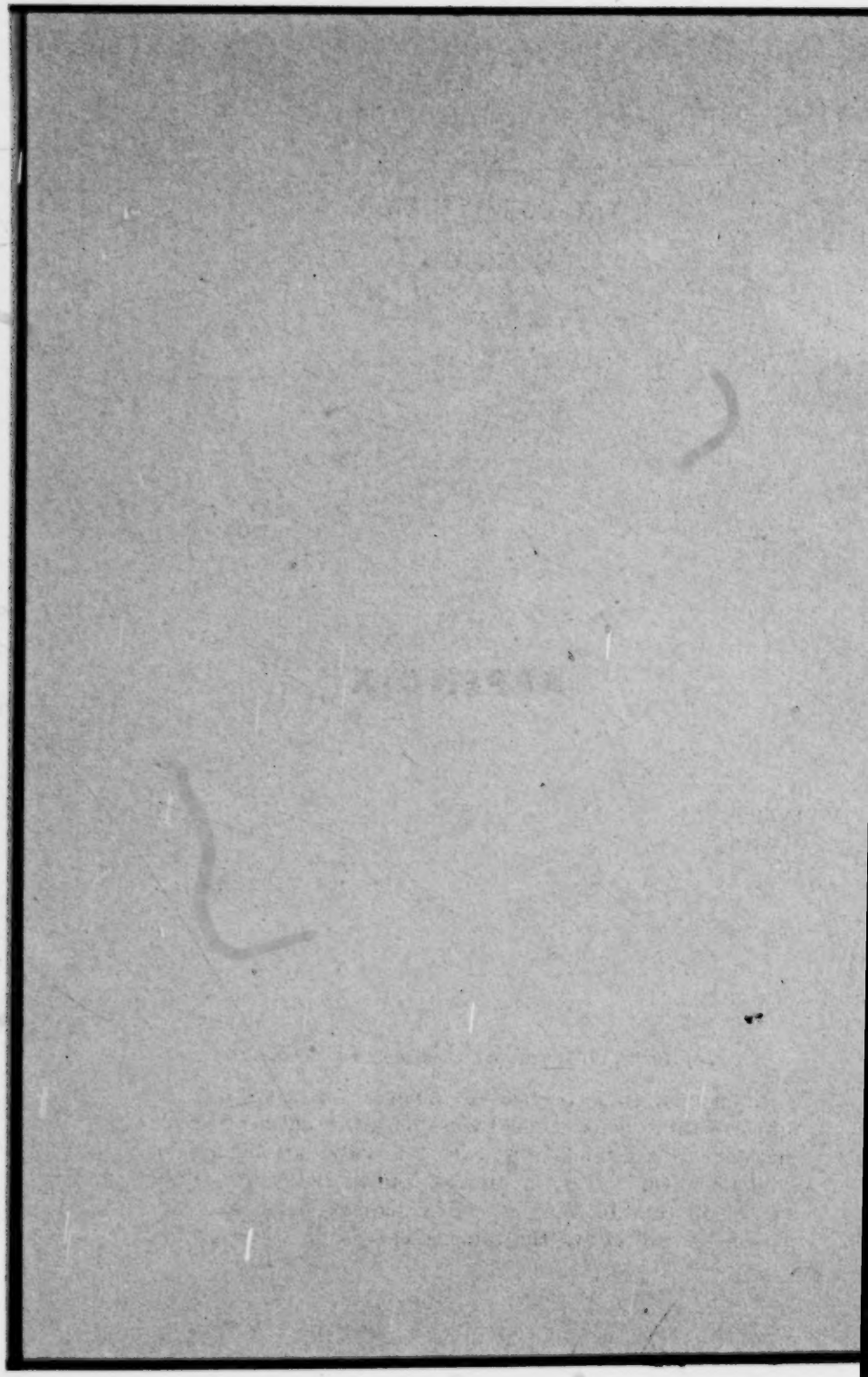
APPENDIX



THE CONSTITUTION

ARTICLE 1

SECTION 8, CLAUSES 3 AND 8

The Congress shall have Power . . .

* * * *

To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

* * * *

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;

* * * *

ARTICLE VI, CLAUSE 2

* * * *

This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

* * * *

AMENDMENT V

Rights of Accused in Criminal Proceedings

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offense to be twice put in

jeopardy of life or limb, nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

AMENDMENT IX

The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

AMENDMENT X

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

AMENDMENT XIV

SECTION 1

All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

* * * *

SECTION 5

The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

TITLE 35, U.S. CODE

§ 101. Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

§ 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless—

* * * *

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, ...

* * * *

THE CONSTITUTIONAL STANDARD OF INVENTION— THE TOUCHSTONE FOR PATENT REFORM

[Written pursuant to invitation of the University of Utah Law Review and shortly to be published therein]

By: Edward S. Irons
Mary Helen Sears

December, 1973

I. INTRODUCTION

Strong historical evidence, as well as often overlooked legislative and judicial precedents of long standing, and the totality of the Constitution itself, read in context, support the view that Congress lacks power to promulgate patent legislation for protection of alleged inventions of a nature such as to have arisen in the normal progression of the application and practice of ordinary skill in the art at the time they were made.

II. THE CONSTITUTIONAL PATENT CLAUSE PER SE

On its face, the constitutional patent clause authorizes Congress to grant exclusive rights to "inventors" *only* for a limited purpose—"to promote progress of science and useful arts." [1]

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[1] The clause in question—Article I, Section 8, clause 8—provides that "The Congress shall have Power . . . to promote Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive right to their respective Writings and Discoveries".

Some writers have argued that this patent clause must be construed as a "balanced sentence" in which "science" is equated to "knowledge" and hence relates only to the power to protect the "writings" of "authors", while the patent power is confined to "discoveries" in the "useful arts". The argument is, in the main, a reaction to Mr. Justice Douglas' observation in *Great A&P Tea Co.* v. *Supermarket Equipment Corp.*, 340 U.S. 147, 156 (1951), that "[t]he Constitution never sanctioned the patenting of gadgets. Patents serve a higher end—the advancement of *science*." Its footless character is perhaps best exposed by reference to Section 3 of the Patent Act of 1793, a statute essentially contemporaneous with the Constitution, which provides, *inter alia*, for a "written description" of any invention sought to be patented "and of the manner of using . . . in such full, clear and exact terms as to . . . enable any person skilled in the *art or science* of which it is a branch or of which it is most nearly connected to make . . . and use the same. . . ." (1 Stat. 318 § 3). The same language appears in the Act of 1836, 5 Stat. 117 § 6.

[Footnote continued on page 6a]

Because patents may be granted *only* for that limited purpose, Congress may not indiscriminately provide for an award of exclusive rights in every "discovery" which human enterprise might unearth. Certain limits upon congressional power are well understood and have found virtually universal acceptance from the time of our very first federal patent statute in 1790.

For example, it is well settled that Congress could not constitutionally promulgate legislation conferring exclusive patent rights upon discoverers of subject matter not "new". Similarly, abstract thoughts and theories including mechanical and scientific principles and laws of nature, though constituting "discoveries" of the most fundamental sort, are not within the scope of congressional prerogative under the patent clause of the Constitution because exclusive appropriation, even for a limited period, would rob the public of access to elemental building blocks of creative thought and thereby stifle "progress in science and useful arts".[2] Consonant with these principles, every

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[1][Continued]

Nor is there substance to the further argument that, by asserting patentable inventions ought to "push back the frontiers of chemistry, physics and the like", Justices Black and Douglas in *A&P*, *supra*, postulated "an impossibly high standard of invention" advanced, *inter alia*, by Lutz in "The Constitution v. The Supreme Court Re Patents For Inventions", 13 U. of Pittsburgh L. R. 449 (1952). Any realist must acknowledge that the level of ordinary skill in technology at the time of the *A&P* case encompassed advanced concepts of "chemistry, physics and the like"—and has progressed to even more advanced ones today. As said in *Graham* v. *John Deere Co.*, 383 U.S. 1, 19 (1966), "[t]he ambit of applicable art in given fields of science has widened by disciplines unheard of half a century ago. . . . He who seeks to build a better mousetrap today has a long path to tread before reaching the Patent Office." It seems inescapable, moreover, that this constantly advancing level of ordinary skill in the art is at least one important part of the "progress" which the Constitution ordained that Congress should have power to *promote* by the promulgation of a patent system. See *infra* pp. 40a-41a.

[2] Were this not so, the realm of theory and abstract truth would soon be occupied by a relatively few monoplists and the community

patent statute enacted by Congress under the Constitution has been careful to define the inventions for which patents might be granted as products or processes (*i.e.* "arts") which are both new and useful.[3]

It is likewise settled, consistent with every patent statute so far enacted, that under the Constitution, the patent

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at large would be precluded from creative enterprise and endeavor. Phillips, *The Law of Patents for Inventions*, 97-98, 109-111 (1837); Curtis, *A Treatise on the Law of Patents for Useful Inventions in the United States of America*, 1st ed. (1849), 3, 56-63, 4th ed. (1873) 2, 156, 187; Robinson, *The Law of Patents for Useful Inventions* (1890) 190-198.

The Court has so recognized in at least *LeRoy* v. *Tatham*, 55 U.S. 156, 174-75 (1852); *O'Reilly* v. *Morse*, 56 U.S. 62, 112-113 (1853); *Burr* v. *Duryee*, 68 U.S. 531 (1864); *DeForest Radio Co.* v. *General Electric Co.*, 283 U.S. 664, 685-86 (1931); *Mackay Radio & Tel Co.* v. *Radio Corp. of America*, 306 U.S. 86, 94 (1939); *Funk Bros. Seed Co.* v. *Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948). See also *Corning* v. *Burden*, 56 U.S. 282 (1853); *Fuller* v. *Yentzer*, 94 U.S. 288 (1877); *Cochrane* v. *Deener*, 94 U.S. 780, 787-88 (1877); *Tilghman* v. *Proctor*, 102 U.S. 708 (1881); *New Process Fermentation Co.* v. *Maus*, 122 U.S. 413, 427-28 (1887); *The Telephone Cases*, 126 U.S. 1, 533 (1888); *Risdon Iron & Locomotive Works* v. *Medart*, 158 U.S. 68, 76 (1895); *Westinghouse* v. *Boyden Power Brake Co.*, 167 U.S. 537 (1898); *Busch* v. *Jones*, 184 U.S. 598 (1902); *Expanded Metal Co.* v. *Bradford*, 214 U.S. 366, 381-5 (1909).

Most recently this fundamental limitation has been recognized and again implemented in *Gottschalk* v. *Benson*, 409 U.S. 63 (1972).

[3] Specifically, the Act of 1790, Section 1, defined that subject matter for which patents could be granted as "any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used. . . ." The language was slightly amended in Section 1 of the Act of 1793 to refer to "any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement in any art, machine, manufacture, or composition of matter. . . ." That language essentially unchanged was carried forward into Section 6 of the Act of 1836 and Section 24 of the Act of 1870. The latter, as R.S. 4886 (1874), remained in force to the adoption in 1952 of the present 35 U.S.C. 101 in which the word "process" has been substituted for the former word "art" with, according to the pertinent reviser's note, no change in meaning.

right must be confined to a limited time,[4] must be an exclusive right,[5] and may be secured only to inventors".[6]

The Supreme Court affirmatively in words, and Congress implicitly by its actions, have consistently discerned and given effect to a further constitutional requirement that an alleged invention, to merit patent protection, must exhibit a character which transcends that attributable to the exercise of ordinary skill in the art and, within its time frame, displays real ingenuity and creativity. The Court has often called this a requirement for "invention" explaining that if the subject matter sought to be patented is such that it would have naturally developed incident to the exercise of ordinary skill in the art—*i.e.* in the normal pursuit of the related trade or calling—then the work is that of a mechanic or other ordinary artisan and *not* that of an inventor.[7]

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[4] The actual span of the limited time—*i.e.* the term of the patent grant—has varied somewhat over the years from 1790 to the present. At some periods the statutes have also permitted renewal for a further limited time beyond the initial term of the grant. In no case, however, was a grant in perpetuity authorized. Detailed discussion of this parameter of the patent power is outside the ambit of this paper.

[5] Questions have been raised as to whether statutory compulsory licensing or working provisions would, if adopted, transgress the exclusivity of the patent right in derogation of the Constitution. Such questions, and exhaustive review of the scope of the right afforded under various patent statutes are outside the scope of this paper. Suffice it to say that under statutes in effect up to 1952, patents granted an exclusive right to make, use and sell the patented invention in the United States while since then, pursuant to 35 U.S.C. 154, the grant has been of "the right to exclude others from making, using or selling" the patented invention in this country.

[6] The broad question of what constitutes an "inventor" under the Constitution and its subsumed question—raised by various legislation proposed since 1966, including bills now pending—of whether assignees may constitutionally apply for patents is outside the scope of this paper, but will be treated in depth in a later paper.

[7] See, *e.g.*, *Phillips* v. *Detroit*, 111 U.S. 604, 607 (1884):

". . . It is plain therefore that the improvement described in the patent was *within the mental reach of anyone skilled in*

III. THE REQUIREMENT FOR INVENTION IN THIS COUNTRY

Congress early gave effect to the requirement, albeit without attempting to define its metes and bounds. Thus, the patent statutes in the periods from 1790-1793 and again from 1836-1952 specified that a patent might be granted even on concededly new and useful subject matter *only* if the examining body [8] deemed it to be "*sufficiently* useful and *important*".[9]

In the time span between 1793 and 1836 when a patent registration system was in effect and the adjudication of the patent right left solely to the courts, the controlling patent act in Section 2 thereof contained a specific limitation "that simply changing the form or the proportion of any machine, or composition of matter, in any degree shall not be deemed a discovery".[10] This particular provision was explicated by Phillips in 1837 as a "construction [which] would undoubtedly have been put upon the law without any such express exception". As Phillips teaches:

> ". . . It is indeed but the branch of a more general rule in giving a construction to the law, namely, that any change or modification of a machine or other patentable subject, which would be obvious to every person acquainted with the use of it, and which makes no material alteration in the mode and principles of its operation, and by which no material addition is made, is not a ground for claiming a patent. To per-

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the art to which the patent relates, and did not require invention to devise it, but only the use of ordinary judgment and mechanical skill. It involves merely the *skill of the workman* and *not the genius of the inventor*. . . ."

[8] In 1790-1793, this "body" was the Patent Board of which Thomas Jefferson was a member; from and after 1836, it was the Patent Office.

[9] See 1 Stat. 109 § 1; 5 Stat. 117 § 7; 16 Stat. 198 § 31; R.S. 4893.

[10] 1 Stat. 318 § 2.

> mit a formal, trivial change in an article to be patentable, or a reconstruction of it upon substantially the same principles, with unimportant differences in form or proportions, would defeat the beneficial operation of the statute and in effect repeal it. . . . " [11]

The present patent statute, enacted in 1952, recites the condition that "a patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." [12] As phrased, the statute simply expresses the same requirement for "invention" that the Court had long recognized the Constitution to require—and the Court has clearly so held in *Graham* v. *John Deere Co.*, 383 U.S. 1 (1966) and *Anderson's Black-Rock* v. *Pavement Salvage Co.*, 396 U.S. 57 (1969).[13]

In so stating, the Court was not, as some writers erroneously assert,[14] making a startling or novel declaration

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[11] Phillips, "The Law of Patents For Inventions", (1837) Section XII, pp. 125-26. Consistent with Phillips, the Supreme Court in *Reckendorfer* v. *Faber*, 92 U.S. 347, 354 (1876), emphasized that "[p]roof that there is no invention or discovery strikes at the root of the whole claim. The patent is based on an affirmative fact of which this is the direct negative. *It needed no statute to aid or justify this defense.*" To the same general effect are *Brown* v. *Piper*, 91 U.S. 44 (1875); *Mahn* v. *Harwood*, 112 U.S. 354 (1884); and *Slawson* v. *Grand Street R. R. Co.*, 107 U.S. 649, 652 (1883).

[12] 35 U.S.C. 103.

[13] The Court itself in *Peasce* v. *Mulford*, 102 U.S. 112, 118 (1880), had similarly characterized the requirement for invention saying, "[i]t must involve something more than what is *obvious* to persons skilled in the art to which it relates."

[14] *E.g.* Kimball, "An Analysis of Recent Supreme Court Assertions Regarding a Constitutional Standard of Invention", 1 APLA Quarterly Journal 204 (1973).

of constitutional law. *Per contra*, the Court had as early as 1885 decreed that the *Constitution* requires subject matter, to be patentable, to transcend the ordinary level of skill in the art.[15]

Moreover, the Court's view that the "requirement for invention" is constitutionally ordained was foreshadowed in its early patent decisions. For example, in *Pennock* v. *Dialogue*, 27 U.S. 1, 19 (1829), the inventor's work was denominated as "genius", consistent with established parlance of centuries in which "genius" had a meaning beyond that of *ordinary skill*. In *Pennock*, moreover, the primary *public* purpose of our patent system was first emphasized by the Court.[16] This primary public purpose

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[15] See *Thompson* v. *Boisselier*, 114 U.S. 1, 11 (1885), in which the Court stated:

> ". . . This court, however, has repeatedly held that, under the Constitution and the Acts of Congress, a person, to be entitled to a patent, must have invented or discovered some new and useful art, machine, manufacture or composition of matter, or some new and useful improvement thereof, and that 'it is not enough that a thing shall be new, in the sense that in the shape or form in which it is produced it shall not have been before known, and that it shall be useful, *but it must, under the Constitution, and the Statute, amount to an invention or discovery.*' "

To the same effect, in *Hollister* v. *Benedict Mfg. Co.*, 113 U.S. 59, 73 (1885), the Court, in finding an alleged invention unpatentable, stated:

> ". . . It is but the display of the expected skill of the calling, and involves only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the facility of manipulation which results from its habitual and intelligent practice; and is in no sense *the creative work of that inventive faculty which it is the purpose of the Constitution and the patent laws to encourage and reward.*"

See also, *Hill* v. *Wooster*, 132 U.S. 693, 700 (1890); *Cuno Engineering Corp.* v. *Automatic Devices Corp.*, 314 U.S. 84, 91 (1941); and the much maligned, but obviously correct, concurring opinion of Justice Douglas in *A&P*, *supra*, note 1, p. 4a, 340 U.S. 156.

[16] Specifically, the Court said:

> ". . . While one great object [of our patent laws] was, by hold-

was further explicated four years later in *Shaw* v. *Cooper*, 32 U.S. 290, 318 (1833), as follows:

> "The patent law was designed for the public benefit as well as for the benefit of inventors. For a valuable invention, the public, on the inventor's complying with certain conditions, give him for a limited period the profits arising from the sale of the thing invented. This holds out an inducement for the exercise of genius and skill in making discoveries which may be useful to society, and profitable to the discoverer. *But it was not the intention of this law to take from the public that of which they were fairly in possession.*
>
> "In the progress of society, the range of discoveries in the mechanic arts, in science,[17] and in all things which promote the public convenience, as a matter of course, will be enlarged. This results from the aggregation of mind and the diversity of talents and pursuits, which exist in every intelligent community. *And it would be extremely impolitic to retard or embarrass this advance, by withdrawing from the public any useful invention or art, and making it a subject of private monopoly.* Against this consequence, the Legislature have carefully guarded in the laws they have passed on the subject."

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ing out a reasonable reward to inventors, and giving them an exclusive right to their inventions for a limited period, to stimulate the efforts of genius; the main object was 'to promote the progress of science and the useful arts;' . . ."

This constitutionally-mandated primary public purpose of the patent system has been repeatedly emphasized by the Court, *inter alia*, in *Kendall* v. *Winsor*, 62 U.S. 322 (1859); *Motion Picture Patents Co.* v. *Universal Film Mfg. Co.*, 243 U.S. 502 (1917); *Mercoid Corp.* v. *Mid-Continent Invest. Co.*, 320 U.S. 661 (1944); *Lear* v. *Adkins*, 395 U.S. 653 (1969); and most recently, *Blonder-Tongue Laboratories, Inc.* v. *University of Illinois Foundation*, 402 U.S. 313 (1971).

[17] See note 1, *supra*. The 1833 Court, like Justices Black and Douglas, understood that the Constitution authorized a patent system to promote *both* "science" and the useful arts.

Notwithstanding the clarity and consistency of the Court's pronouncements, many patent practitioners, especially over the last twenty-five to thirty years, have engaged in vigorous challenge to the "requirement for invention",[18] insisting that it lacks historical or constitutional

[18] At least one segment of the patent bar professes an inability to understand the "requirement for invention" because of its alleged imprecision. See, *inter alia*, Rich, "Congressional Intent—Or, Who Wrote the Patent Act of 1952", Patent Procurement and Exploitation, pp. 61-78 (1963); Rich, "The Principles of Patentability", 28 George Washington L.R. 393 (1960); Rich, "The Vague Concept of 'Invention' As Replaced By Section 103 of the 1952 Act", 8 *Idea* 136 (1964).

The same group also professes to discern a different and more precise meaning in the requirement of 35 U.S.C. 103 for "nonobviousness", despite the Supreme Court's contrary holding in *Graham, supra*, note 1, and *Anderson's Black-Rock, supra*, p. 10a.

Even without the Court's ruling, however, the controversy between "invention" and "nonobviousness" would appear to be a purely semantic one. The Court in *Graham, supra*, said that "[t]he emphasis on nonobviousness is one of inquiry, not quality [as with "invention"], and, as such, comports with the constitutional strictures (383 U.S. at 17), emphasizing that this did not change the test. Thus, ". . . it bears repeating that we find no change in the general strictness with which the overall test is to be applied. . . . The standard has remained invariable in this Court." (383 U.S. at 19).

Under any label, this standard is equally objective with, and no more imprecise than, that of the "ordinary reasonable man" so prominent in the law of torts. In *Graham*, the Court also commented that the difficulties of applying the test "are comparable to those encountered daily by the courts in such frames as negligence and scienter, and should be amenable to a case-by-case development". (383 U.S. at 18). Dispassionately viewed, it seems clear that the alleged imprecision is more often the result of application or misapplication of the standard to specific factual situations in particular cases, or the consequence of lifting a portion of the language of a decision out of context, than it is of any true variance or incomprehensibility in the standard itself. Other seeming fluctuations in the standard of invention are not that at all, but are attributable to the continuing rise in the level of ordinary skill in the art, which necessarily disqualifies from *present* patent protection many alleged inventions which would have been, or were, eligible to be patented at an earlier period when the level of ordinary skill was much lower. See note 1, *supra*.

imperative and hence that Congress may change its focus or even obviate it at will.[19]

In general, the challengers have ignored or failed to appreciate the need to read the Patent Clause in context with the balance of the Constitution or have overlooked significant aspects of relevant European and American history.

IV. EUROPEAN ANTECEDENTS

Numerous writers have traced in detail the emergence of patent systems in England and on the Continent.[20] It is generally acknowledged that the term "patents" was originally generic to exclusive privileges of various kinds, including patents for true inventions, importation franchises and even monopolies on old products.[21]

Initially patents were granted randomly and individually by special law or grant rather than pursuant to an established administrative or statutory scheme.[22]

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[19] See, *e.g.*, Lutz, *supra*, note 1; Kimball, *supra*, note 14; Fox, "Monopolies and Patents" (1947); Siedel, "The Constitution And A Standard of Patentability", 48 J. Pat. Off. Soc'y 5 (1966); Posnack, "The Continued Erosion of Our Patent System", 52 J. Pat. Off. Soc'y 255 (1970).

[20] See, *inter alia*, Mandich, "Venetian Patents", 30 J. Pat. Off. Soc'y 166 (1948); Frederico, "Origin and Early History of Patents", 11 J. Pat. Off. Soc'y 292 (1927); Bugbee, "Genesis of American Patent and Copyright Law", Washington Public Affairs Press (1967), pp. 12-48; Fox, "Monopolies and Patents", Toronto (1947), pp. 19-189; see also, Prager. "A History of Intellectual Property from 1545 to 1787", 26 J. Pat. Off. Soc'y 711 (1944); Prager, "The Early Growth and Influence of Intellectual Property", 34 J. Pat. Off. Soc'y 196 (1952).

[21] Some specific examples of different kinds of exclusive privileges granted in the Italian city states and in England before 1500 and, later, on the Continent in countries other than Italy, appear, *inter alia*, in Bugbee, *supra*, note 20; Federico, *supra*, note 20; and the two Prager articles, *supra*, note 20.

[22] There is some evidence of the existence of a Venetian patent law in the early part of the 15th Century specifically directed to-

The system of granting exclusive rights to individuals, whether for an invention *per se* or the importation of a new product,[23] seems to have gained headway in medieval times as an inducement to encourage foreign craftsmen to settle in a particular country and teach new technology to its subjects. Absent such an inducement, foreign craftsmen would have been precluded by existing local guild monopolies from practicing any aspects of their arts in a new country.[24]

The guild monopolies were of ancient origin, having evolved from the Third Century when Roman emperors utilized the sale of monopoly concessions in industry and trade as revenue-raising measures.[25] By the Middle Ages

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ward inventions in the field of machines and processes for speeding up and improving silk making. See Prager, "The Early Growth and Influence of Intellectual Property", *supra*, note 20, at pp. 130-31. The City-State of Venice certainly pioneered in the establishment of a formal patent system as evidenced by the statute adopted in 1474 discussed *infra*, p. 17a.

[23] For many years, the word "invention" embraced importations. See note 29, *infra*. For clarity it is utilized herein in its modern sense to refer only to original creations.

[24] For example, Edward III in the Thirteenth Century encouraged such new industries as the manufacture of worsted cloth from wool by a patent to Flemish immigrants. As late as the time of Elizabeth I, foreign workmen experienced in various aspects of the art of glassmaking were granted patents as an inducement to relocation in England and teaching of these arts to English subjects.

[25] Monopoly practices of the Roman emperors in the 3rd and 4th Centuries resulted in heavy oppression of the common people, and consequently in so much internal agitation and strife, that Zeno, Emperor of the Eastern Roman Empire, in 483 outlawed some existing and all future monopoly awards. The same statute was later included by Justinian I in his Code. See Mund, "Monopoly—A History and Theory", Princeton University Press (1932) at 6-7.

The Roman law, however, permitted many established commercial monopolies to subsist throughout and these monopolies in the form of guilds survived the fall of Rome—perhaps because of their relative stability in the chaotic political situation which followed. Mund points out that during the Middle Ages up to at

these guilds had complete economic control of every aspect of commerce and the arts. They regulated strictly every aspect of price, cost and manufacture, as well as worker education and security. They were empowered to enforce their broad subject matter monopolies rigorously within their geographic ambits *inter alia* by arbitrary search of non-members' premises and peremptory confiscation of unauthorized goods. The guilds were, in general, not interested in promoting technological progress, whether through introduction of new inventions or otherwise. The impetus within the guilds was instead for economic stabilization and stagnation, *inter alia*, by suppression and restraint of inventions that infringed or might infringe guild monopolies.[26]

It seems indisputable that as originally conceived, patents, whether for inventions or for importations, had a triple purpose: first, to encourage new manufactures in the realm, thereby promoting commerce; second, to educate the interested people of the realm in new technology, thereby raising the level of their ordinary skill and promoting further inventions; and third, to afford inventors a right, otherwise belonging only to the guilds, to profit by commercial practice of their inventions. The guilds, as repositories of and autocrats over technology reflecting the

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least the 12th Century, the term "monopoly" was not applied to the guilds or the equally monopolistic agricultural manors even though it certainly fit both. (*Id.* at pp. 8-10).

[26] Like all generalities this one had its exceptions, many of which are pointed out in the books by Bugbee and Fox, *supra*, note 20. It is a matter of historical record, however, that the guilds often brought to bear very heavy pressures to restrain technological progress. For example, reference is made by Frederico, *supra*, note 20, at 298, to the refusal in England in the reign of Elizabeth I of a patent on a stocking knitting machine characterized as "one of the most original and striking inventions of the age" because of guild objections that many would be forced out of work if the machine were put into use. See also, Fox, *supra*, note 20, at 74.

prevailing level of ordinary skill in the art, particularly opposed the grant of individual monopolies—*i.e.* "patents" —either for new inventions or newly imported manufactures where the effect was to inhibit guild members in the exercise of the ordinary skills of which they were already in possession.[27]

The formal patent statute adopted by the Venetian Republic in 1474 is consistent with these principles. While affirmatively recognizing the need to encourage the work of "men of great genius apt to invent and discover ingenious devices", it was careful to preserve the rights of the guilds and minimize the invasion of their prerogatives by requiring that the exclusive patent right be limited to a term of ten years and be awarded only for "any new *and ingenious* device . . . not previously made in our Commonwealth . . . reduced to perfection so that it can be used and operated." [28]

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[27] Sir Edward Coke defined monopoly as "an institution or allowance by the King, by his grant, commission, or otherwise, to any person or persons, bodies politic or corporate; of or for the sole buying, selling, making, working or using anything; whereby any person or persons, bodies politic or corporate, are sought to be restrained of any freedom or liberty that they had before, or hindered in their lawful trade". Institutes of the Laws of England (London 1797), III, p. 181 (c. 85); III (1669 ed.) Chap. LXXV, p. 181.

Of course, the people in Medieval and Renaissance Europe, including England, had very little real "freedom or liberty" at any time "before" the guilds and similar collective monopolies, such as agricultural manors, were established. Virtually every man had some "lawful trade" within the framework of the guild or manor, however; hence, "monopoly" repugnant to its pursuit was considered "odious".

[28] The *full* text of this Venetian statute is reproduced in Bugbee, *supra*, note 20 at pp. 22-23. Bugbee acknowledges in a footnote the existence of a different translation of the same statute in Frumkin, "The Early History of Patents for Invention", LVIV (1947-48), p. 27. The critical wording of the original Italian "nuovo et ingegnoso artificio" is also reproduced by Prager in "The Early Growth and Influence of Intellectual Property", *supra*, note 20 at p. 139.

Pursuant to the statute, the General Welfare Board of the City of Venice engaged in an actual inspection ("experientia") of each alleged invention in operation before any patent was awarded. It is important that the Venetian statute *could* have provided for the award of patent rights on the basis of a device that was simply "new"; the fact that it did not do so reflects the recognition in Venetian society of a need to balance the guilds' interest in protecting their members' continued right to the full exercise of ordinary judgment and skill in the art with the realm's desire to encourage both commercial and intellectual progress and its resolution—to reward *only* inventions exhibiting ingenuity *above* the level of ordinary skill in the art.[29]

The English patent system, which evolved concurrently with that of Venice over several centuries from approximately the time of Edward III, was parallel in many re-

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[29] It is important to recognize that as of 1474 there was no way in which new technology could be communicated to the public unless the article or process involved were put into practical use in commercial channels. The art of printing was then in its earliest infancy, and published material was expensive and scarce. Besides, writers of that era did not concern themselves with subjects so mundane as technology.

It was several centuries before the idea of a written specification describing the invention such as United States patent law has always required (*vide* present 35 U.S.C. 112) was even a feasible alternative, as disclosure of an invention, to the actual construction or practice of the alleged invention in commerce. The connection between the unavailability of publications disclosing new technology up to the 18th Century or even later and the early practice in England and on the Continent of classifying importers as "inventors" has been recognized, *inter alia*, by Prager in "Standards of Patentable Inventions from 1474 to 1952", 20 U. Chicago L.R. 69 (1952) and in "A History of Intellectual Property from 1545 to 1787", *supra*, note 20 at p. 139. In the former work, Prager emphasized "[t]hat early English practice identified importers with inventors does not show any lack of interest in the merits of the items invented or imported. It only shows that, before the advent of technical instruction in print, disclosure of new technology required actual commercial introduction and use." (p. 71).

spects to that of Venice, even though not governed by any formal statutory or administrative practice until much later than that established pursuant to the 1474 Venetian statute. Patents came particularly into prominence during the reign of Elizabeth I who utilized them not only as a tool for promoting commercial and intellectual progress, but also as an instrument of royal favor—a circumstance which led to numerous abuses because of indiscriminate award of monopolies in old commodities ranging from such relative frivolities as playing cards to such necessities as salt.[30] The *validity* of patents in this period, however, was within the province of the English courts. These courts applied criteria essentially the same as those mandated by the Venetian statute of 1474 and those now demanded by our Constitution.

Thus, history records that prior to the 1624 Statute of Monopolies, English courts regularly invalidated patents granted for subject matter admittedly novel, but well within the prevailing level of ordinary skill of the art.

In one such case, *Matthey's Patent*, granted in 1571 for a particular type of knife handle, was challenged by the cutlers' guild on the ground that "they did use to make knives before, though not with such hafts, that such a light difference or invention should be no cause to restrain them. . . ." [31] This resulted in a decision that "he [Matthey] could never have benefit of his patent although he labored very greatly therein."

Another such case involved *Hasting's Patent* for a certain kind of cloth, granted in 1569, but refused enforcement against a guild which demonstrated that its mem-

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[30] See especially Fox, *supra*, note 20.

[31] See Prager, "Standards of Patentable Invention From 1474 to 1952", *supra*, note 29 at pp. 71-72. The same patent case is also mentioned by Frederico, *supra*, note 20 at p. 297, but the inventor "Matthey" is referred to as "Richard Matthew".

bers had, prior to the patent, made cloth "very like to" (albeit not the same as) that covered by the patent.[32]

Still another case involved *Bircot's Patent*, apparently granted prior to 1600,[33] which was for a new method of smelting. It resulted in a court decree of invalidity based on evidence from which it was concluded that the subject matter disclosed "was but to put a new button to an old coat, and it is much easier to add than to invent." [34] These early English cases are particularly remarkable in at least two respects. In the first place, the apparently spontaneous selection of a standard of invention above the ordinary level of skill in the art independently of the same selection in Venice is persuasive evidence of a recognition that society could not function satisfactorily if patents were granted which interfered with the normal exercise by the guilds of ordinary judgment and skill in their respective arts. In the second place, the essentiality of this requirement to the proper functioning of society is the more marked in view of the fact that these cases were decided prior to 1624 when the Statute of Monopolies was enacted and hence at a time when the right of the Crown to grant patents arbitrarily and even capriciously enjoyed full sway.[35]

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[32] See Prager, *id.* at p. 72; see also Hulme, "History of the Patent System", 12 Law Quarterly Review 141, 149-50 (1896).

[33] Prager, *id.* at p. 72, says that this case was reported in the Institutes of Sir Edward Coke first published shortly after 1600.

[34] The quotation is from 1 Web. Pat. Cases 31, note (p) (1844).

[35] The abuses of the patent power by the Crown prior to the Statute of Monopolies are well known and have been extensively documented by many writers, including Bugbee and Fox, *supra*, note 20. It is important to recognize that the Statute curbed only some monopolies. It left intact not only patents for inventions (including importations) but also "patents", charters, and franchises previously granted which conveyed exclusive trading and manufacturing privileges to guilds, corporations and similar groups. The monopolies abolished by the statute, albeit constituting the ones at that time most bitterly resented by the common people, constituted a

After the adoption of the Statute of Monopolies, the English courts continued to require inventive merit as a prerequisite to the enforcement of patents. In particular, the principle of *Bircot's Patent* that "it is much easier to add than to invent" was so strictly observed that English courts for many years refused to give effect to "improvement" patents, taking the position that only so-called "basic manufactures" *could* exhibit sufficient ingenuity to constitute invention and hence merit exclusive patent protection.[36]

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relatively narrow class of "patents" granted to royal favorites on old commodities such as salt and playing cards (*supra*, p. 19a).

It is also of interest that the statutory abolition of the Crown's power to grant arbitrary "patent" monopolies was initially more formal than real and that the actual grant of such "odious" monopolies by the Crown continued for about 50 years after 1624 and gave rise to intense internal strife, including a brief civil war.

[36] According to Prager, "Standards of Patentable Inventions From 1474 to 1952", *supra*, note 29 at p. 72, this was the position of the English courts up to the 1776 case of *Morris* v. *Bransom* when a more lenient view of "inventive merit" was adopted. The first Supreme Court patent case, *Evans* v. *Eaton*, 16 U.S. 454 (1818), established that, while improvement patents could be given effect in this country, it was incumbent on their inventors to clearly delineate the extent of the improvement and distinguish it from the thing improved. See also in this regard, the later decisions about the same patent in the same and a related case—*to wit*, *Evans* v. *Eaton*, 20 U.S. 356 (1822), and *Evans* v. *Hettich*, 20 U.S. 453 (1822).

The failure of the English system to examine for "inventive merit" prior to the grant of a patent persisted from before the time of Elizabeth I to 1949 when a statute—the Patents and Designs Act (1949) § 14(1)—was adopted which required the British Patent Office and, implicitly, its adjunct appellate courts, to deal with questions of invention raised by third parties in opposition to the grant of a patent. Even today, however, there is no *ex parte* examination by the British Patent Office for "invention", though lack of inventive merit remains a ground for invalidation of patents in the British courts. See generally, Meinhardt, "Inventions Patents and Monopoly", London, 1946 at p. 45.

V. AMERICAN COLONIAL ANTECEDENTS

The colonization of the United States was initiated essentially contemporaneous with the 1624 Statute of Monopolies [37] and at a time during which economic regimentation in England was at an exceptionally high level. As one writer has put it:

> "The economic system of restriction and regulation reached its peak in England during the seventeenth century. Most of the old restraints persisted and with the growth of trade many new ones developed. The corporate towns and guilds continued to restrict the admission of new members and became, in the words of a contemporary writer, 'oppressive oligarchies, excluding or discouraging the English subjects from trading in our greatest and best situated towns where the markets are.' Merchants began to join their stocks of goods, and to share the profits and losses, instead of trading individually. Such companies were known as joint stock companies and received exclusive charters from the king. Further restrictions on trade were imposed by an extensive system of custom duties and by the Navigation Acts of 1651 and 1660. The Navigation Acts obliged English subjects to use English ships for all goods imported from, or exported to, Asia, Africa or America; and to use English ships, or ships of the country which produced the goods, for all things imported from, or exported to, European ports. Never before had English trade been circumscribed with so many regulations." [38]

The settlers who emigrated from England and Continental European [39] countries to the American colonies,

[37] Specifically, the settlement of Virginia began in 1608; that of Massachusetts in 1620, and that of other colonies progressively later in the Seventeenth Century.

[38] Mund, *supra*, note 25 at p. 23.

[39] Mund, *id.* at p. 28 *et seq.*, shows at length that economic regi-

albeit of widely diverse economic, social and political backgrounds, had each in their own separate ways had experience with this prevailing economic system of monopolies. Nothwithstanding their diverse interests, these settlers were preponderantly united in a desire for greater individual freedom and less regimentation and in a willingness to forego personal comforts in order to attain it.

In particular, the colonists believed that every man should have the right to exploit his own talents without arbitrary interference from or regulation by exclusive corporations, trading companies and the like.[40] Hand-in-hand with this notion of individual personal liberty went a deep-rooted colonial aversion to other monopolistic practices.[41]

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mentation similar to that in England was also then rife throughout Western Europe.

[40] Exclusive corporations evolved in England from the guilds and were chartered during the 17th and 18th centuries. These exclusive corporations retained the special privileges and monopoly powers with which they had been endowed at their original creation as well as those special privileges with which they were later invested by English law. Thus, for example, under the 1558 Statute of Apprenticeship, eligibility to practice a trade was severely restricted because satisfactory completion of a seven-year apprenticeship, which was a prerequisite, could be achieved only by those to whom the relevant guild gave full approbation.

Mund, *supra*, note 25, discusses this and other incidents of European mercantilism at pp. 28 *et seq.* and demonstrates how English and French economists in the 18th Century were increasingly inspired to preach repudiation of this monopolistically-oriented economic regimentation in a favor of a *laissez-faire* economy.

[41] Legal writers and historians tend to sentimentalize the "rights of Englishmen" and thereby to give the impression that personal liberty was in the English tradition at least subsequent to the Magna Charta. While it is true that "[t]he roots of American freedom are . . . to be found in English constitutional history", Schwartz "The Bill of Rights", Vol. 1 (1971) p. 1, it is also true that these English rights have throughout history been far more often honored in the breach than in the observance. In the 17th and 18th centuries their exercise was much inhibited by the existing rampant economic monopolization and, at times, also by arbitrary

These ideas were especially important in the later formulation of the Constitution, including the Patent Clause.

Strictly speaking, each of the English colonies in America operated under a charter granted as a matter of privilege and grace by the English Crown. All these charters, moreover, were similar to existing charters in England of trading companies, guilds, exclusive corporations, and the like and were viewed in England as full equivalents of such charters, subject to amendment by Parliament at any time. However, these charters authorized the establishment of local governments—and the settlers early proceeded to exercise this authority and to establish their own laws guaranteeing individual rights and liberties. These laws took cognizance of every man's right to use his talents and skills in pursuit of a trade. Moreover, labor and manpower being in short supply, this right was exercised to the fullest by the settlers as a matter of sheer necessity.

The Colony of Massachusetts was a leader in the enactment in 1641 of a code of laws, the Body of Liberties, designed, according to the Journal of Governor John Winthorp, to guarantee "such liberties, immunities and priviledges as humanities, Civilities and Christianities call for as due to every man in his place and proportion."[42] One of its significant provisions was that,

"No monopolies shall be granted or allowed amongst

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restrictions imposed by the sovereign. Moreover, these rights have always been, at best, contractual rights arrived at as an accommodation between people and sovereign.

Even today English liberties exist at the sufferance of Parliament and are subject to change by duly enacted statutes. By contrast, individual liberties in the United States derive directly from the sovereignty of the people themselves under the authority of the written Constitution and hence constitute restraints upon congressional power.

[42] See Schwartz, *supra*, note 40 at p. 70.

> us, but of such new Inventions that are profitable to the Countrie, and that for a short time." [43]

A very similar provision virtually identically worded [44] was embodied in a Connecticut statute of 1672. In both colonies, the years preceding the Revolution saw a handful, in the order of ten or less,[45] patents each granted by special legislative act for inventions "profitable to the Countrie".

While it is unclear whether these patents were for original creations or for importations, it seems certain that no "new invention" *could* have been considered "profitable to the Country" if it had interfered with the colonists' exercise of their own ordinary skills and judgment. Particularly so, moreover, when the rigors of the mere struggle for continued existence at that time are recalled and considered in context with the deep concern for individual liberties.

Also notable in its obvious influence upon the later constitutional Patent Clause is the "Frame of Government" written by William Penn and adopted by the Colony of Pennsylvania in 1682. This document charged the Governor and Provincial Council with the duty to "erect and order all public schools, and encourage and reward the

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[43] *Id.* at p. 73. The Body of Liberties was also careful to provide for freedom of speech, due process of law, protection of life, liberty and property, and even freedom of access to government records.

[44] Specially, the Connecticut statute said:

> "It is ordered; That there shall be no monopolies granted or allowed amongst us, but of such new inventions as shall be judged profitable for the country, and that for such time as the General Court shall judge meet". Bugbee, *supra*, note 20 at p. 69.

[45] Bugbee, *id.* at pp. 57-83, catalogs specific colonial patent grants and recites many of their provisions.

authors of useful sciences and laudable inventions in said Province".[46]

In another provision of the Frame, it was ordained that the Provincial Council should encompass four standing committees including, *inter alia*, one for trade and treasury to "regulate all trade and commerce, according to law, encourage manufacture and country growth and defray the public charge of the province" [47] and one for "manners, education and the arts" charged with duties including the training of youth in "useful knowledge and arts".[48] From the language of these provisions and the obvious association of the reward for laudable invention with education rather than commerce, it seems clear that Penn early visualized patents for invention as primarily educational in character, calculated to induce inventors to instruct the community in new inventions for the common good.[49]

Penn's co-religionist and fellow Pennsylvanian, Benjamin Franklin, appears to have subscribed fully to this view. Franklin noted in his Autobiography that after his own invention of the "Franklin stove", the Governor of Pennsylvania offered him a patent which he declined because "as we enjoy great advantages from the inventions of others, we should be glad of an opportunity to serve others by any invention of ours, and this we should do freely and generously." [50]

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[46] Schwartz, *supra*, note 40 at p. 136.

[47] *Id.* at 136-37.

[48] *Id.* at p. 137.

[49] This thinking runs counter to the primary function of patents as theretofore utilized throughout Europe, including England, as a tool for promoting commerce.

[50] "Benjamin Franklin's Autobiographical Writings", edited by Van Doren (1945) at p. 721. The Franklin stove with small changes was imported into England and patented there by an English subject who, according to Franklin, "made . . . a little fortune by it". *Ibid.* Franklin likewise did not patent any of his other inventions, such as the lightning rod, but simply gave them to society.

The Colony of South Carolina was also active prior to the Revolution in the granting of patents and must be presumed to have influenced the constitutional Patent Clause. This Colony came closest to establishing a *system* for the granting of patents by establishing, for a time, a committee which was charged with reviewing those devices and processes on which petitions for patent had been addressed to the legislature. This committee recognized that patent protection ought not to be awarded indiscriminately for a device or process that would or might inhibit the pursuit of ordinary skill. In one of its recommendations, the committee expressed the "Opinion that all possible encouragement should be given to the People of a mechanical *Genius*".[51] There is also a record of at least one refusal by this committee of a patent in an instance where the applicant neither provided a model of his device nor was able to give an adequate description of it.[52]

Other relatively isolated instances of colonial patent interest or activity may be found,[53] but it seems safe to say that they are of little historical and philosophical significance. There are probably many reasons for this. The continued economic dominance by English corporate and guild monopoly of colonial trade and commerce did not create a particularly auspicious climate for originality and invention. Moreover, many of the people were for long years so fully occupied with survival itself that there was relatively little time for such pursuits. And since a patent was not, as it had been in Europe under the guilds, necessary to permit a man to practice his own invention, some inventors probably proceeded just like Benjamin Franklin did, to practice their inventions freely and dedicate them to society. After all, the investment in time and money needed to successfully petition a legislature for a patent

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[51] Bugbee, *supra*, note 20 at p. 79.

[52] *Id.* at p. 80.

[53] See Bugbee, *supra*, note 20 at pp. 57-83.

was considerable and the incentive to make this investment was lessened when the patent was not a necessary license to use the invention.

English economic monopolies, which were always a paramount object of colonial resentment, led eventually to the Revolution. Every school child is familiar with the "monopoly on tea that sparked the Revolution" [54] and with the excesses of the Stamp Act and the Townshend Acts. Less well known is the "list of infringements and violations of rights" drawn up by the Boston Town Meeting in 1772 which complained, *inter alia*, that the English action incident:

> "The restraining us from erecting Stilling Mills for manufacturing our Iron the natural produce of this Country, *Is an infringement of that right with which God and nature have invested us, to make use of our skill and industry in procuring the necessaries and conveniences of life.* And we look upon the restraint laid upon the manufacture and transportation of Hatts to be altogether unreasonable and grievous. . . ." (Emphasis added).[55]

It remained for the colonists to find a way of giving real and practical effect to the rights "invested" by "God and nature" including that "to make use of our skill and industry in procuring the necessaries and conveniences of life"—and every citizen knows the story of the Revolution and the Declaration of Independence.

VI. SOME CONCEPTS WHICH DEMONSTRATE THE CONTEMPORANEOUS MEANING OF THE PATENT CLAUSE

The Declaration of Independence by the union of the original thirteen colonies fundamentally proclaims the sub-

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[54] *Graham* v. *John Deere Co.*, *supra*, note 1 at p. 7.

[55] Schwartz, *supra*, note 40 at p. 209.

servience of government power to the consent of the governed and the "unalienable rights" of every citizen to "life, liberty and the pursuit of happiness". Similar proclamations were essentially concurrently made as declarations or constitutions in virtually every one of the individual former colonies.[56] Of particular interest here are provisions contained in two of these declarations concerning monopoly. Specially, the Maryland Declaration of Rights, approved November 3, 1776, decreed "that monopolies are odious, contrary to the spirit of a free government, and the principles of commerce; and ought not to be suffered." [57] In similar vein, the North Carolina Declaration of Rights, adopted December 17, 1776, specified "that perpetuities and monopolies are contrary to the genius of a free State, and ought not to be allowed." [58]

It seems safe to say that the years immediately following the Revolution and preceding the framing and adoption of the Constitution were a time of economic and political experimentation in which the new country, as a loose union of states, groped toward a workable form of government embodying the individual rights to which the people pronounced themselves entitled. The initial effort to establish a form of central government, the Articles of Confederation, was ineffectual and weak in many respects including markedly in its failure to make provision for the orderly conduct of interstate and foreign commerce. Perhaps because of the intense aversion of the people to economic monopoly, there is no indication of any consideration, incident to the adoption of the Articles of Confederation, of the establishment of a patent system. Some of the States did grant some patents during this period, primarily by special legislative act. Particularly

[56] See generally, Schwartz, *supra*, note 40, which quotes the full text of each.

[57] Schwartz, *supra*, note 40 at p. 284.

[58] *Id.* at p. 288.

active were Pennsylvania, which awarded grants containing provisions which appear to have been much influenced by the earlier thinking of William Penn,[59] and South Carolina, which in 1784 enacted a formal patent and copyright statute. At least one patent was granted in each of Georgia, Maryland, Virginia, Delaware, New Jersey, New York, Connecticut, and New Hampshire as well.[60] Quite commonly, these early state grants recited in a preamble the objective of encouraging and rewarding "men of learning and genius" [61] or "ingenious men".[62] The striking similarity of language of such grants to that of the Venetian statute of 1474 cannot be regarded as imitative, since even the most learned Americans of the time seem to have been unaware of prior patent systems except in England.[63] Hence, it seems reasonable to attribute the parallelism of language to a certain parallelism of concept and specifically to the notion that an invention, to

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[59] *Supra*, p. 25a-26a.

[60] See Bugbee, *supra*, note 20 at pp. 84-103, for a detailed catalog of these state patents; see also, *inter alia*, Federico, "State Patents", 15 J.Pat.Off. Soc'y 166 (1931); Prager, "The Steamboat Pioneers Before the Founding Fathers", 38 J.Pat.Off. Soc'y 486 (1955); Prager, "The Steamboat Interference 1787-1793", 40 J.Pat.Off. Soc'y 611 (1958). Experiences of such men as Oliver Evans, James Rumsey, and John Fitch incident seeking patents in each of several states, particularly as to involved time and expense, may have been one factor in the move for centralized federal patent power.

[61] Bugbee, *supra*, note 20 at p. 85.

[62] *Id.* at p. 99.

[63] For example, Thomas Jefferson, one of the most learned men of his day, commented in an 1813 letter to Isaac McPherson that,

> "It is a fact, as far as I am informed, that England was, until we copied her, the only country on earth which ever, by a general law, gave a legal right to the exclusive use of an idea. In some other countries it is sometimes done, in a great case and by a special and personal act, but, generally speaking, other nations have thought that these monopolies produced more embarrassment than advantage to society; . . ." VI Writings of Thomas Jefferson (Washington ed.) at p. 180 (1814).

merit an exclusive grant, must transcend the ordinary level of skill in the art.

A. The Constitutional Convention

The annals [64] of the 1787 Constitutional Convention shed very little light on the debate, if any, pertinent to the adoption of the Patent Clause. In large part, this seems to be attributable to the circumstances under which the Convention was conducted, pursuant to which the delegates agreed that no minutes would be kept of the actual deliberations so as better to permit them to express their views free of the possibility of political reprisals in their home states.

Those records which do survive, demonstrate that several different proposals were made for the form of language,[65] that some of these proposals contemplated a separate clause to cover patents from that which covered copyrights, that the question of the language in which the provision should be cast was submitted to a committee chaired by David Brearley of New Jersey and that this committee on September 5, 1787 reported to the Convention the language now appearing in the Constitution, which was adopted on the same day.[66]

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[64] For the details of what *is* available concerning the deliberations at the Convention including, *inter alia*, the journal of James Madison, first opened to the public some thirty years after the conclusion of the Convention, see Farrand, "The Records of the Federal Convention of 1787" and House Document No. 398, 69th Cong., 1st Sess. Also of interest, though less detailed and devoid of reproduction of the pertinent historical documents, is Warren, "The Making of the Constitution" (1928) and its 1947 revision.

[65] For details of precise language of the different proposed forms of the pertinent clause see the works cited in note 64, *supra*; also see Fenning, "Origin of the Patent and Copyright Clause of the Constitution", 11 J.Pat.Off. Soc'y 438 (1927); Prager, "A History of Intellectual Property From 1547-1587", *supra*, note 20 at p. 759; Bugbee, *supra*, note 20 at pp. 125 *et seq*.

[66] See works cited in note 64, *supra*.

Far more informative in demonstrating the real intent of the constitutional framers incident the adoption of the Patent Clause is a consideration of various contemporaneous and immediately subsequent writings and actions of the framers in the context of the whole Constitution and its interpretation by the Supreme Court over the years.

B. Controlling Property Concepts

James Madison, one of the most influential of the constitutional framers over the ultimate form and content of the Constitution, set forth his concepts of "property and liberty" in terms that are particularly meaningful even today. Property, said he, "in its particular application means 'that domination which one man claims and exercises over the external things of the world, in exclusion of every other individual'." However,

> "In its larger and juster meaning, it embraces every thing to which a man may attach a value and have a right; *and which leaves to every one else the like advantage.*
>
> In the former sense, a man's land, or merchandise, or money is called his property.
>
> In the latter sense, a man has property in his opinions and the free communication of them.
>
> He has a property of peculiar value in his religious opinions, and in the profession and practice dictated by them.
>
> He has property very dear to him in the safety and liberty of his person.
>
> He has an equal property in the free use of his faculties and free choice of the objects on which to employ them.
>
> In a word, as a man is said to have a right to his property, he may be equally said to have a property in his rights.

"Where an excess of power prevails, property of no sort is duly respected. No man is safe in his opinions, his person, his faculties or his possessions.

Where there is an excess of liberty, the effect is the same, tho' from an opposite cause.

Government is instituted to protect property of every sort; as well that which lies in the various rights of individuals, as that which the term particularly expresses. This being the end of government, that alone is a *just* government, which *impartially* secures to every man, whatever his *own*. . . .

* * * *

That is not a just government, nor is property secure under it where arbitrary restrictions, exemptions, and monopolies deny to part of its citizens that free use of their faculties, and free choice of their occupations, which not only constitute their property in the general sense of the word; but are the means of acquiring property strictly so called. . . .

* * * *

If there be a government then which prides itself on maintaining the inviolability of property; which provides that none shall be taken *directly* even for public use without indemnification to the owner, and yet *directly* violates the property which individuals have in their opinions, their religion, their persons, and their faculties; nay more, which *indirectly* violates their property, in their actual possessions, in the labor that acquires their daily subsistence, and in the hallowed remnant of time which ought to relieve their fatigues and soothe their cares, the inference will have been anticipated, that such a government is not a pattern for the United States.

"If the United States mean to obtain or deserve the full praise due to wise and just governments, they

will equally respect the rights of property, and the property in rights." [67]

Man's "property in the free use of his faculties and free choice of the objects on which to employ them", translated into the patent field, necessarily includes man's right to use his talent and skill as he will. This right *a fortiori* belongs to every man and is *not* an essential prerogative of a particular person whether or not he is the originator of something new. Incompatible with this is a strange theory, adhered to by some even today, that every man has a natural property right in his own ideas which society is morally obligated to protect—with the result that patents for new ideas are of the essence of "natural" law and ought to be recognized by positive law.[68]

On its face this "natural property right in ideas" theory has little of logic. Ideas, by their very nature, identically occur in many minds. "Property in ideas, once published, is an insoluble contradiction".[69] It is a "strange confusion of thought which puts on the same level an invention . . . the peculiar characteristic of which is that it can be disseminated through many minds and can be exploited in a hundred different places at the same time—with a material object, necessarily circumscribed, which, because it cannot be divided, can only be possessed by one man

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[67] From an article of March 29, 1792, published in National Gazette quoted from "The Complete Madison", edited by S. K. Padover (1953) at pp. 267-69.

[68] Some writers purport to see support for this theory in the constitutional Patent Clause because it speaks of "securing" exclusive rights to inventors for their discoveries. See, *e.g.*, Prager, "A History of Intellectual Property From 1545 to 1787", *supra*, note 20; Fox, *supra*, note 20; Bugbee, *supra*, note 20; Lutz, *supra*, note 1. The argument is essentially semantic and lacks objective support in precedent or legislative action.

[69] Rentzsch, "Geistiges Eigentum", Handworterbuch der Volkswirtschaft (Leipzig 1866) at pp. 333-34, as quoted in translation by Machlup and Penrose, "The Patent Controversy in the Nineteenth Century", 10 J.Econ. History 1, 12 (1950).

and which cannot be usefully exploited except where it is. . . ." [70] In short, "an idea can belong to an unlimited number of persons; it is indeed the essence of an idea that, once published, it belongs to all the world. . . ." [71] Jefferson, who viewed "stable ownership" as "the gift of social law . . . given late in the progress of society" utterly rejected the notion that inventions might be a natural subject of property.[72]

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[70] Coquelin, "Brevets d'invention", Dictionaire de l'economie politique (Paris 1873) at p. 217, as quoted in translation by Machlup and Penrose, *supra*, note 69.

[71] Michel Chevalier speaking in the French legislative body on June 5, 1869, as quoted in translation by Machlup and Penrose, *supra*, note 69 at p. 13.

[72] In pertinent part, he stated:

> "It would be curious then, if an idea, the fugitive fermentation of an individual brain, could, of natural right, be claimed in exclusive and stable property. If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density in any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation. Inventions then cannot, in nature, be a subject of property. Society may give an exclusive right to the profits arising from them, as an encouragement to men to pursue ideas which may produce utility, but this may or may not be done, according to the will and convenience of the society, without claim or complaint from anybody." Letter to Isaac McPherson, *supra*, note 63.

In *Shaw* v. *Cooper*,[73] the Supreme Court carefully specified that the exclusive right conferred by the patent laws, while perhaps justly deserved by inventors "can only be secured by a substantial compliance with every legal requisite. His [*i.e.* the inventor's] exclusive right does not rest alone upon his discovery, but also upon the legal sanctions which have been given to it, and the forms of law with which it has been clothed." [74] In similar vein, Congress in 1894 incident a general codification of the patent laws, rejected the natural property right theory as applied to patents, stating that the patent clause of the Constitution clearly cannot be read to state or imply such a right:

> "The object to be attained and the reason for the constitutional grant of power are imbedded in the grant itself. They are 'to promote the progress of science and the useful arts'. *There is nothing said about any desire or purpose to secure to the author or inventor his 'natural right to his property'. The monopoly given him is avowedly given, not primarily for his benefit, but for the benefit of society at large.* The claims made so often, especially of recent years, that the author or inventor has a natural right to the exclusive use of his production, and is therefore entitled, as of course, to legislation securing to him the full enjoyment of this right, does not seem to have been specifically passed upon by the fathers; but one thing is absolutely certain, they did not make this constitutional grant of power upon any such ground. Much confusion of thought has arisen from the assertion of this right as an innate, absolute right existing

[73] 32 U.S. 290, 318 (1833).

[74] The Supreme Court has also recognized an *inchoate* right of property in an invention during the period of reduction to practice and application for patent as implicit in the patent laws, *Pennock* v. *Dialogue, supra*, p. 11a, *Gayler* v. *Wilder*, 51 U.S. 477 (1850), *Brown* v. *Duchesne*, 60 U.S. 183 (1857), but has been careful to make clear that an actual property right does not arise until the patent is issued. *Marsh* v. *Nichols*, 128 U.S. 605 (1888).

in the individual, and a contemporaneous neglect to examine the limitation of the power given in the premises to Congress.

"It is perhaps safe to say that for the past twenty or thirty years no Committee on Patents has had an existence which has not had the fortune to listen to long and very interesting arguments claiming the existence in the author or inventor of this right, and the duty of Congress to give by legislative enactment full and complete enjoyment of that right. Whatever may be the correct conclusion as to the existence of any such right, the duty of Congress is measured by its power, and that power can be no broader than the words conferring it.

. . . It is sufficient to read the words of the grant in their plain every-day meaning to discover that the good of society was the only things provided for, or intended to be provided for. . . ." [75]

Further confirmation of the constitutional rejection of the natural property right theory as applied to new ideas, if such be needed, is present in the mandates of the Fifth and Fourteenth Amendments of the Constitution. Consistent with Madison's views, these amendments recognize, as property of *every citizen* the right to utilize his own talents and skills in the pursuit of a trade or calling.[76] The amendments have many times been explicated by the Supreme Court. For example, in *Allgeyer* v. *Louisi-*

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[75] House Report No. 1494, 52d Cong., 1st Sess. (1894). A similar rejection of the natural right approach as applied to copyrights appears in House Report No. 2222, 60th Cong., 2d Sess. (1909) at p. 7. See also, *Graham, supra,* note 1 reaffirming in 1966 that "[t]he patent monopoly was not designed to secure to the inventor his natural right in his discoveries."

[76] Or as the 1772 Boston Town Meeting put it in pursuit of the "necessaries and conveniences of life", *supra,* p. 28a. The same thought expressed as the right to "life, liberty and the pursuit of happiness" appears in the Declaration of Independence.

ana,[77] the Court stated, specifically with regard to the Fourteenth Amendment,

> ". . . The liberty mentioned in that amendment means, not only the right of the citizen to be free from the mere physical restraint of his person, as by incarceration, but the term is deemed to embrace the right of the citizen *to be free in the enjoyment of all his faculties; to be free to use them in all lawful ways; to live and work where he will; to earn his livelihood by any lawful calling; to pursue any livelihood or avocation*, and for that purpose to enter into all contracts which may be proper, necessary, and essential to his carrying out to a successful conclusion the purposes above mentioned.
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> It was said by Mr. Justice Bradley in Butchers' Union S.H. & L.S.L. Co. v. Crescent City L.S.L. & S.H. Co., 111 U.S. 746, 762, in the course of his concurring opinion in that case, that 'the right to follow any of the common occupations of life is an inalienable right. It was formulated as such under the phrase "pursuit of Happiness" in the Declaration of Independence, which commenced with the fundamental proposition that 'all men are created equal; that they are endowed by their Creator with certain inalienable rights; and among these are life, liberty, and pursuit of happiness.' This right is a large ingredient in the civil liberty of the citizen.' Again, on page 764, the learned justice said: 'I hold that the liberty of pursuit—the right to follow any of the ordinary callings of life—is one of the privileges of a citizen of the United States.' And again, on page 765: 'But if it does not abridge the privileges and immunities of a citizen of the United States to prohibit him from pursuing his chosen calling, and giving to others the exclusive right of pursuing it, it certainly does deprive him, to a certain extent, of his liberty; for it takes from him the freedom of adopting and following the pursuit which he prefers; which, as already

[77] 165 U.S. 578, 589-90 (1886).

> intimated, is a material part of the history of the citizen.' It is true that these remarks were made in regard to questions of monopoly, but they well describe the rights which are covered by the word 'liberty' as contained in the 14th Amendment."

The basic premise that "[t]he right to hold specific private employment and to follow a chosen profession free from unreasonable governmental interference comes within the 'liberty' and 'property' concepts of the Fifth Amendment," has been reaffirmed in recent years.[78] These rights are equally inherent in the Ninth Amendment and the Tenth Amendment reservations to the people of rights and powers not delegated to the federal government in the Constitution, or to a particular state in its constitution, a fact which has been clearly recognized in state courts.[79]

A fortiori, there being no natural right to exclusive property in an idea, and the patent right being an intrusion upon the property right of every citizen in the free exercise of his own talents, the patent power must be construed narrowly. And thus construed, it may not reward new ideas which are products of ordinary skill in the art because exclusive property rights in such ideas are as much direct infringements upon the opposing and preeminent rights of every citizen in our culture as similar grants were infringements upon guild monopolies in Venice and Elizabethan England.

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[78] *Greene* v. *McElroy*, 360 U.S. 474, 492 (1959); *United States* v. *Robel*, 389 U.S. 258 (1967).

[79] For example, the Supreme Court of California has held that,

> ". . . [P]ublic policy and natural justice require that equity should also be solicitous for the right inherent in all people, not fettered by negative covenants upon their part to the contrary to follow any of the common occupations of life. Every individual possesses as a form of property, the right to pursue any calling, business or profession he may choose." *Continental Car-Na-Var Corp.* v. *Moseley*, 148 F.2d 9 (1944).

As said in *Atlantic Works* v. *Brady*,[80]

> "The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in its consequences.
>
> The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favors. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. . . ." [81]

Mr. Justice Bradley wrote the *Atlantic Works* decision. In his concurring opinion in *Butchers' Union*, cited and quoted in *Allgeyer*, *supra*, delivered only a year later, he noted that "[t]he granting of patents for inventions and copyrights for books is one instance already referred to [of permissible exclusive rights]. This is done upon a fair consideration and upon grounds of public policy. Society gives to the inventor or author the exclusive benefit for a

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[80] 107 U.S. 192 (1883).

[81] 107 U.S. at 199-200. This passage was cited and quoted in *A&P*, *supra*, note 1. The latter is in turn reaffirmed in *Anderson's Black-Rock*, *supra*, p. 10a. See also *Hotchkiss* v. *Greenwood*, 52 U.S. 248 (1850), which also expresses this same thought, now codified in 35 U.S.C. 103. See *Graham*, *supra*, note 1.

time of that which, but for him, *would not or might not have existed;* and thus not only repays him but encourages others to provide their powers for the public utility." [82] While the quoted language does not define explicitly the "fair consideration" upon which patents may be granted, its suggestion that but for the inventor the invention "would not or might not have existed" is obviously to be read in context with *Atlantic Works* to mean that only a high standard of invention will achieve the requisite balance. Manifestly, one aspect of the *primary* public interest which dominates the patent system [83] is society's paramount goal of preserving the rights of all men in the free use of their own skill and talent—a goal which would be undermined by indiscriminate patent grants in all "new" discoveries. It follows that "should Congress, under pretext of executing its powers, pass laws for the accomplishment of objects not entrusted to the government" such as a purported patent law derogating the true natural property rights of all citizens, the Court would have "the painful duty . . . to say that such an act was not the law of the land". [84]

C. Monopolies and Commerce

Many of those who presently insist that the constitutional Patent Clause does not impose a mandatory lower limit upon the standard of invention, view patents as a primary tool for encouraging commerce through bringing new inventions to market. [85] Proponents of this view often

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[82] 111 U.S. 746, 763. The first references by the Court to the Constitutional origin of the requirement for invention, *supra*, note 15, were made the next year after *Butchers Union* and are particularly illuminating in this context.

[83] See, *e.g.*, the cases *cited* in note 16, *supra*, especially *Mercoid Corp.* v. *Mid-Continent Investment Co.*, 320 U.S. 660, 665-66 (1944).

[84] *McCulloch* v. *Maryland*, 17 U.S. 316, 423 (1819).

[85] See, *e.g.*, Judge Frank, concurring in *Picard* v. *United Aircraft Corp.*, 128 F.2d 632, 643 (2d Cir. 1942); Lutz, *supra*, note 1; Seidel, *supra*, note 19; Posnack, *supra*, note 19.

urge that patents for merely novel subject material could be justified under the Commerce Clause of the Constitution even if not permitted by the Patent Clause.[86]

A major inherent defect of this view is that it fails even to strive for harmony in the interpretation of the entire Constitution and, instead, pits the Patent Clause against the Commerce Clause, ignoring altogether the effects of Fifth and Fourteenth Amendment guarantees.[87]

In the first place, if the Constitution had ever intended that patents might be granted as a device for encouraging *commerce*, it seems inescapable that there would have been no need for a Patent Clause in the Constitution and hence

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[86] See *Picard, supra*, note 85. See also, 84 Stat. 1558 § 131, the Plant Variety Protection Act, purporting to justify the grant of exclusive rights for seventeen years to the owner of any merely new sexually reproduced plant as follows:

> "It is the intent of Congress to provide the indicated protection for new varieties by exercise of any constitutional power needed for that end, so as to afford adequate encouragement for research, and for marketing when appropriate, to yield for the public the benefits of new varieties. Constitutional clauses 3 [the Commerce Clause] and 8 [the Patent Clause] of article I, section 8 are both relied upon."

Obviously recognizing that these *de facto* patents covering useless and noninventive plant varieties are unconstitutional and anticipating that the Court will eventually so hold, Congress then included in the statute a Section 132 providing that:

> "If this Act is held unconstitutional as to some provisions or circumstances, it shall remain in force as to the remaining provisions and other circumstances."

Notably, agricultural lobbies were the main witnesses concerning this bill prior to its enactment—and as a result, the public interest was given short shrift.

[87] It is well established that if possible a constitution, like a statute, must be so read as to give effect to all of its parts without doing violence to any. See, *e.g.*, *United States* v. *Boisdore's Heirs*, 49 U.S. 113 (1850); *United States* v. *American Trucking Assn.*, 310 U.S. 534 (1940); *United States* v. *Alpers*, 338 U.S. 680 (1950); and *Mastro Plastics Corp.* v. *N.L.R.B.*, 350 U.S. 270 (1956).

none would have been included. Particularly so, moreover, when it is remembered that previous patent experience in both England and the American Colonies, had been directed primarily toward the encouragement of the introduction of new manufactures into commerce, so that the possibility of using patents to stimulate commerce must have been considered. Certainly, the breadth of the commerce power would have permitted the federal exercise of power to grant patents [88] if no specific patent power had been extended.[89]

It necessarily follows that the *separate* patent clause was included at least in part to emphasize that Congress had no power to provide for the granting of patents as a primary stimulant to commerce. Consistently, Supreme Court pronouncements over the years have stressed that the inventor's reward in the constitutional scheme is only a secondary object of the patent system.[90]

Moreover, the remoteness from any legitimate objective of the patent laws of financial rewards to investors for the commercialization of an invention was particularly recognized in *Wilson* v. *Rousseau*,[91] the Court emphasizing.

> "They had purchased portions of the interest in the invention, and dealt with the patent rights as a

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[88] As Chief Justice Marshall observed in *Gibbons* v. *Ogden*, 22 U.S. 1 (1824), that power is embracive of every aspect of "intercourse between nations and parts of nations, in all its branches . . . ."

[89] Consistent with this thinking is the circumstances that a proposed provision granting Congress power "to establish public institutions, rewards and immunities, for the promotion of agriculture, commerce, and manufactures," was defeated with Governeur Morris of New York, one of its opponents, observing "[i]t is not necessary. The exclusive power at the seat of government will reach the object." See Warren, *supra*, note 64 (1947 ed.) at p. 702.

[90] See, *e.g.*, *Motion Picture Patents Co.* v. *Universal Film Mfg. Co.*, *supra*, note 16, citing and quoting, *inter alia*, *Pennock*, *supra*, p. 11a.

[91] 49 U.S. 646, 678 (1846).

matter of choice and speculation; and stood in no different relationship to the government or the public than other citizens engaged in the common affairs of life."

Robinson on Patents in 1890 also emphasized that,

". . . When the Constitutional Convention met, its members had before them, there under consideration, the English idea, and a suggestion of a different idea, in the practice of the colonies. The English idea had been to encourage monopolies so that the introduction of a new trade or a new art was the essence of the law. The constitutional idea, however, was that of encouraging domestic invention, and in the first patent law of 1790, and in all subsequent amendments of that law, the basic idea has been to encourage original invention. The introduction of those inventions into use was wisely left to the incentive of business enterprise. The intention was to encourage inventive thought; to secure a disclosure of the inventive thought as promptly as possible." [92]

As said in *McClain* v. *Ortmayer*,[93]

". . . If the generality of sales were made the test of patentability, it would result that a person by securing a patent upon some trifling variation from previously known methods, might, by energy in pushing sales or by superiority in finishing or decorating his goods, drive competitors out of the market and secure a practical monopoly, without in fact having made the slightest contribution to the useful arts." [94]

In short, the entrepreneur's relationship to the patent system under our Constitution is at best incidental.[95]

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[92] Robinson on Patents (1890 ed.), Introduction (pp. 4-5).

[93] 141 U.S. 419 (1890).

[94] 141 U.S. at 428.

[95] See also, *Graham, supra*, note 1, 383 U.S. at 17, where commercial success is denominated a factor which "may have rele-

Consistent with the earlier thinking of William Penn,[96] patents were intended to serve a primarily educational, rather than commercial, function in the American constitutional scheme. This conclusion in turn leads directly back to the fact that the constitutional Patent Clause requires a high standard of invention in order to effectuate that purpose.

Further evidence that the patent Clause requires a high standard of invention may be gleaned from some of the debate between the Federalists and the Antifederalists, prior to ratification of the Constitution, concerning whether the commerce power was broad enough to give Congress an unlimited license to grant monopolies in trade and commerce.[97] The Antifederalists wanted an express prohibition against monopoly in the Constitution. In asserting that it was not needed because already present, one Federalist, writing under the pseudonym "Marcus", responded to the objections of George Mason of Virginia in pertinent part as follows:

> "The first mentioned is, 'That the Congress may grant monopolies in trade and commerce.' Upon examining the constitution I find it expressly provided, 'That no preference shall be given to the ports of one State over those of another;' and that 'citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.' These provisions appear to me to be calculated for the very

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vancy" in assessing whether the constitutional standard of invention has been met—albeit as emphasized later, 383 U.S. at 35-36, not where "exceedingly small and quite nontechnical differences in a device which was old in the art" are at issue.

[96] *Supra*, p. 25a-26a.

[97] The Antifederalist view as to the impermissible sweep of the Commerce Clause was espoused, *inter alia*, by George Mason of Virginia, by a pamphleteer styled "Agrippa" who may have been James Winthrop of Massachusetts and even to some extent by Thomas Jefferson who initially believed that the Constitution might benefit from a Bill of Rights provision expressly prohibiting all monopolies including patents. See generally, Schwartz, *supra*, note 40, especially at pp. 444-47 and 510-23.

purpose Mr. Mason wishes to secure. Can they be consistent with any monopoly in trade and commerce? [2]

[2] One of the powers given to Congress is, 'To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.' I am convinced Mr. Mason did not mean to refer to this clause. He is a gentleman of too much taste and knowledge himself to wish to have our government established upon such principles of barbarism as to be able to afford no encouragement to genius." [98]

Here again, in the equation of "taste and knowledge" with inventive "genius" and in its opposition to "barbarism", there is evidence of a recognized primary patent purpose to stimulate intellectual and educational, rather than commercial, development.

The drive for a constitutional amendment specifically prohibiting all monopolies did not, of course, succeed. However, the Fifth and Fourteenth Amendment guarantees [99] and the reservations of certain individual rights to the people in the Ninth and Tenth Amendments are necessarily just as much of a restriction upon the commerce power as they are upon the patent power. Considered in context with Coke's definition of monopoly,[100] these guarantees necessarily prohibit all those forms of monopoly power—such as exclusive trading and manufacturing corporations—which had particularly plagued the American settlers as well as any new forms of monopoly which might invade established rights of the people or interfere with their practice of a lawful trade. This fact would seem to compel the further conclusion that there is *no substance* to any argument that the Congress might be empowered to do indirectly under the Commerce Clause what it is forbidden to do under the Patent Clause and authorize the granting of patents which would deprive

[98] See Schwartz, *supra*, note 40 at p. 451.

[99] Discussed, *supra*, pp. 37a-41a.

[100] *Supra*, note 27.

the public of access to knowledge within the ordinary skill of the art.[101]

D. Contemporaneous Construction of the Patent Clause

Patent legislation in the form of the Patent Act of 1790 followed hard upon the heels of the ratification of the Constitution.[102]

The Patent Act of 1790 was the first patent *statute* anywhere to require as a condition of the grant the submission of a detailed specification fully describing the invention. By contrast to earlier requirements for putting the invention into commercial use as a prerequisite to the patent grant, this statutory requirement strongly emphasized the primary teaching function of the patent right under the Constitution.

Under the Patent Act of 1790, as is now well known, Thomas Jefferson, a member of the Patent Board, evolved a set of rules designed to insure observation of a high standard of invention incident the granting of patents. These rules, reproduced in the Court's opinion in *Graham* v. *John Deere Co.*,[103] were intended by Jefferson to serve as the nucleus for additional rules to be worked out with

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[101] Congress seems to so realize, even though not always guided by the realization. See note 86, *supra*.

[102] Interestingly, the first form of patent statute proposed in Congress after ratification referred to both patents and copyrights and provided, analogously to legislation now under consideration, that an applicant for patent must publish in two newspapers a notice of his application briefly describing his invention and inviting any one opposed to the patent grant to appear at a particular time and place to contest it. The only known copy of this proposed bill identified as H.R. Bill No. 10 is retained at the Copyright Office, Library of Congress. Its discovery was announced July 25, 1955 in the Information Bulletin of the Reference Division of that office, Vol. 14, p. 13.

[103] *Supra*, note 1, 383 U.S. 1, 10.

reference to the specific facts of particular situations as they later arose. In essence, these rules defined as *per se* unpatentable because within the ordinary skill of the art and hence, if patented, incursions upon the rights of the people, the following: (1) aggregations of old elements such as the Court most recently condemned in *Anderson's Black Rock;*[104] (2) mere changes of form or material in otherwise old objects; and (3) applications of old machines to new and obvious uses. All of these rules, in view of their evolution within a period only five years subsequent to the drafting of the Constitution, must be considered as particularly persuasive contemporaneous evidence of its requirement for a high standard of invention.

VII. CONCLUSION

In the frame of history, the Constitution authorizes the promulgation of a patent system *only* to advance the level of science and useful arts to an extent beyond what exercise of ordinary skill and judgment at the same point in time could provide.

This constitutional standard of invention did not originate in our society, but derives from Renaissance Europe, where patents originated, and from Elizabethan England. At their beginnings, patents were special exclusive licenses from a sovereign, permitting their recipients to practice a particular art in derogation of existing monopoly prerogatives of collective guilds over all arts and crafts. To balance guild interests in a stable society against realm interests in technological progress, valid patents were restricted to subject matter transcending what the ordinary level of skill in the art could then have provided. Early patent systems necessarily acted to promote commerce as well as progress, since public disclosure was then perforce synonymous with commercial use.

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[104] *Supra*, p. 9a.

The American experiment provided the first political milieu in which every citizen was accorded *in practice* a right, tantamount to a property right, to exploit his own talents and skills in pursuit of a trade without guild fetters or similar restraints. Indiscriminate exclusive patent protection to any particular citizen conflicts with this universal personal right of every citizen in the same way it earlier conflicted with guild monopolies. Hence, to preserve the universal personal right, society may permit patents *only* for the purpose of promoting progress in science and useful arts, where "progress" is defined as that quantum of advancement which might not or could not result from ordinary pursuit of normal skill and judgment. Society's paramount desire to preserve personal rights is manifested in our Constitution in the failure of the people to cede to the federal government an unlimited power to grant exclusive patent rights unreservedly. This state of affairs can be changed only if the Constitution is amended and the people give up some portion of the personal rights they now retain.

When the Constitution was adopted, means for general circulation of written material were available and public disclosure could hence be made without commercialization. Monopolies in commerce, including trade and manufacture, were then much in disrepute as infringements upon universal personal rights. English monopolies in commerce had at least accelerated and perhaps precipitated the establishment of the Union of American States, and there was little disposition toward use of exclusive patent rights to promote commerce.

The fact that patents are not available in the United States as mere monopolies to promote commerce which would necessarily encroach upon the aforementioned universal right of every citizen, is emphasized by the separate status in Article I of the Constitution of the Patent and Commerce Clauses. These separate clauses and the guar-

antees of individual liberties in the Fifth and Fourteenth Amendments can be rationalized and harmonized *only* if the patent power is understood to be narrowly confined to the encouragement of real breakthroughs in science and useful arts—*i.e.* progress—thereby preserving society's primary goal of permitting every citizen to pursue his trade freely. When this goal is preserved, monopolization of what society enjoyed before, or had a right to pursue, is likewise avoided. When the goal is not preserved and patents are indiscriminately permitted for subject matter falling within the ordinary skill of the art, patents in fact are monopolies which act to restrain unfairly the exercise of ordinary skill and thereby to stagnate and even retard science and useful arts.

This is the lesson of history which prompted the framing of our Constitution—and it is this same lesson which, today more than ever, *ought* to be heeded in the interest of advancing and not stifling the progress of our civilization.